

1 IN THE UNITED STATES DISTRICT COURT
2 FOR THE EASTERN DISTRICT OF TEXAS
3 MARSHALL DIVISION

4 FINESSE WIRELESS, LLC, (CAUSE NO. 2:21-CV-316-JRG
5)
6 Plaintiff, (
7 vs.)
8 AT&T MOBILITY, LLC, et al., (MARSHALL, TEXAS
9) JANUARY 12, 2023
10 Defendants.) 8:30 A.M.
11

12 VOLUME 4

13 TRIAL ON THE MERITS

14 BEFORE THE HONORABLE RODNEY GILSTRAP
15 UNITED STATES CHIEF DISTRICT JUDGE

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1 THE COURT: Be seated, please.

2 Are the parties prepared to read into the record those
3 items from the list of pre-admitted exhibits used during
4 yesterday's portion of the trial?

5 MS. STRAKA: Yes, Your Honor.

6 THE COURT: Let's proceed to do that, please.

7 MS. STRAKA: Plaintiff's Exhibit 450, 464, 664, 708,
8 827, 862, 867, and 911. Defendant's Exhibits 9, 10, 19, 40,
9 93, 95, 103, 274, 279, 281, 283, 287, 295, 305, 318.

10 THE COURT: Does that complete your rendition?

11 MS. STRAKA: Yes, it does, Your Honor.

12 THE COURT: Is there any objection?

13 MS. FAIR: No, Your Honor.

14 THE COURT: All right. Are you prepared to continue
15 with your cross-examination of the witness, Mr. Grinstein?

16 MR. GRINSTEIN: I am, Your Honor.

17 THE COURT: Mr. Proctor, I see you're on the witness
18 stand. I'll remind you that you remain under oath.

19 And let me ask both of you gentlemen to make sure that
20 the other one's finished before you jump in with the next
21 answer or the next question. It's important that we keep the
22 record clear and avoiding talking over each other is
23 important.

24 All right. Let's bring in the jury, please, Mr. Turner.

25 (Whereupon, the jury entered the courtroom.)

1 THE COURT: Good morning, ladies and gentlemen.

2 Welcome back. Please have a seat.

3 We will pick up this morning with the continuing
4 cross-examination of Mr. James Proctor by counsel for the
5 Plaintiff.

6 Mr. Grinstein, you may continue.

7 MR. GRINSTEIN: Thank you.

8 JAMES PROCTOR, PREVIOUSLY SWORN,

9 testified under oath further as follows:

10 CROSS EXAMINATION continued

11 By Mr. Grinstein:

12 Q. Good morning, Mr. Proctor.

13 A. Good morning.

14 Q. Now, in addition to claiming that the Defendants don't
15 infringe Finesse's patents, you're also saying that the
16 asserted claims of Finesse's patents are invalid. Right?

17 A. Correct.

18 Q. And there is a presumption that patents issued by the
19 United States Patent and Trademark Office are valid. Right?

20 A. Correct.

21 Q. And that applies to all patents, including the Finesse
22 patents in this case. Right?

23 A. Yes.

24 Q. And so to show that Finesse's patents are invalid, you
25 need to demonstrate clear and convincing evidence. Correct?

1 A. Correct.

2 Q. Now, with respect to prior art, there are two different
3 kinds of invalidity arguments or invalidity
4 theories--anticipation and obviousness. Right?

5 A. Yes.

6 Q. And anticipation is where one single prior art reference
7 discloses all the elements of a patent claim. Right?

8 A. Correct.

9 Q. So if you were going to say one inventor out there had
10 invented all of Mr. Smith's inventions before he did, you
11 would assert an anticipation argument. Right?

12 A. Yes.

13 Q. But the Defendants in this case are not asserting
14 anticipation as their validity defense. Right?

15 A. Well, on the '775, I put forth an opinion of anticipation
16 for McCalister and obviousness for the combination.

17 Q. Do you think that the jury instructions in this case are
18 going to instruct the jury on the issue of anticipation?

19 A. I would assume so.

20 Q. You want to stake your credibility on that?

21 A. I don't -- I have not seen the jury instructions, so I'm
22 not making any opinion about that.

23 Q. You are asserting an obviousness case. Correct?

24 A. Yes.

25 Q. And that involves combining two prior art references

1 together and saying those combined references contain all the
2 elements of the claim. Right?

3 A. Correct.

4 Q. And in an obviousness case, it is the Defendant's burden
5 to show that there would have been a motivation to combine.
6 Correct?

7 A. Yes.

8 Q. So you can't just take two random pieces of prior art and
9 slap them together. You actually have to show a skilled
10 artisan would have been motivated to combine them. Right?

11 A. Yes. If those two random pieces had motivation to
12 combine, you could combine them.

13 Q. Now, you've heard of the phrase hindsight is 20/20,
14 haven't you?

15 A. Yes.

16 Q. And in an obviousness analysis, you can't use hindsight
17 bias to show there would have been a motivation to combine two
18 pieces of prior art. Right?

19 A. Correct.

20 Q. And Defendants have to prove this motivation by clear and
21 convincing evidence as well. Right?

22 A. Yes.

23 Q. Strict standard of proof. Right?

24 A. Correct.

25 Q. And yet every time you've opined in court on the issue of

1 patent validity, it just so turns out that you've found that
2 clear and convincing evidence that the U.S. Patent and
3 Trademark Office shouldn't have issued patent claims. Right?

4 A. Yes.

5 Q. Now, one of the two pieces of prior art that you
6 discussed as to the '134 Patent is this reference called Kim.
7 Right?

8 A. Yes.

9 MR. GRINSTEIN: And I think that's DX 10. Let's
10 look at that real quick.

11 Q. (BY MR. GRINSTEIN) Now, the claims of the '134 Patent,
12 not the Kim, but the claims of the '134 Patent relate to a
13 digital system. Is that right?

14 A. They do, yes.

15 Q. Kim deals with analog systems. Right?

16 A. Well, no. It's not specific to it.

17 Q. Does it expressly call out digital?

18 A. It doesn't expressly call out, either.

19 Q. And so you put together Kim with digital Bazarjani for
20 your combination. Right?

21 A. Yes.

22 Q. And I think, if I got your testimony right, you said that
23 the world was moving towards digital at this time so someone
24 would be motivated to make the Kim invention digital. Is that
25 right?

1 A. Yes, it is.

2 Q. The Kim patent was filed in 1998. Right?

3 A. Yes.

4 Q. Bazarjani was actually filed a year earlier in '97,
5 wasn't it?

6 A. Yes.

7 Q. So Bazarjani was out there promoting a digital approach
8 when Kim did this patent and didn't say digital. Right?

9 A. Correct.

10 MR. GRINSTEIN: If I could look at column 3, lines
11 47 through 56, of Kim, please.

12 Q. (BY MR. GRINSTEIN) These are some lines of the patent
13 that I think you discussed in your direct testimony yesterday.
14 Is that right? Or if you didn't, can you let me know?

15 A. I don't recall if I cited that specific section or not.

16 Q. There's a discussion up there about an IMD product
17 generator. Do you see that?

18 A. Yes.

19 Q. That's intermodulation product?

20 A. Yes.

21 Q. And it says right there that suitable configurations are
22 known to those skilled in the art. Right?

23 A. Yes.

24 Q. Kim doesn't purport to show all those configurations,
25 does it?

1 A. No.

2 Q. Kim teaches using a filtered copy of the intermodulation
3 to create the cancellation signal. Right?

4 A. I'm sorry. Repeat that?

5 Q. Kim teaches using a filtered copy of the intermodulation
6 to create the cancellation signal. Right?

7 A. No.

8 Q. Does Kim show using source signals to create
9 intermodulation?

10 A. Transmit signals.

11 Q. Do you see line 51 up there? It says, the main signal is
12 filtered out so as to leave only intermodulation products? Do
13 you see that?

14 A. Yes.

15 Q. Were you here for Mr. Smith's testimony on Monday?

16 A. I was.

17 Q. And did you hear him testify that his invention was a
18 departure from the three historical ways of dealing with PIM?

19 A. Yes.

20 Q. And did you hear him testify that one of the three
21 historical ways of dealing with PIM that he specifically
22 rejected was filtering? Did you hear that?

23 A. I did.

24 Q. The Bazarjani patent, that's DX 9, this is the other
25 reference that you cited in your '134 validity analysis. Is

1 that right?

2 A. Yes.

3 Q. And, again, your contention is that if you put Kim and
4 Bazarjani together, they render the '134 obvious. Correct?

5 A. Yes, they do.

6 Q. Now, Bazarjani does mention intermodulation products.

7 Right?

8 A. No.

9 Q. Okay. So it doesn't mention intermodulation products.

10 A. No. It's an A to D converter with a decimating filter
11 for isolating.

12 Q. It never mentions cancellation then of intermodulation
13 products if it doesn't mention intermodulation products.

14 Right?

15 A. Well, correct, yes.

16 Q. I think if you did a word search, the word cancel
17 wouldn't even appear in Bazarjani. Right?

18 A. I wouldn't expect it, no.

19 Q. And you mentioned that Bazarjani was assigned to
20 Qualcomm. Right?

21 A. Yes.

22 Q. You can see that right on the first page. Right?

23 A. Yes.

24 Q. Did you hear from Mr. Smith on Monday that he disclosed
25 his technology to Qualcomm?

1 A. Yes.

2 Q. And did you hear his testimony on Monday that Qualcomm
3 was praiseworthy of his technology?

4 A. I don't recall that.

5 Q. Did you hear his testimony that Qualcomm never said his
6 technology was old?

7 A. I suppose. I don't recall that specifically.

8 Q. Did you hear his testimony that Qualcomm never said his
9 invention was obvious?

10 THE COURT: Just a minute, counsel.

11 What is that noise? That's downstairs?

12 I apologize. Apparently we're having some improvements
13 done downstairs that I didn't think were scheduled for today.

14 Okay. Let's continue.

15 Q. (BY MR. GRINSTEIN) Did you hear Mr. Smith's testimony
16 that Qualcomm never said his invention was obvious?

17 A. No, I didn't hear that.

18 Q. I mean, it doesn't sound like in Mr. Smith's meetings
19 with Qualcomm, Qualcomm pulled out the Bazarjani patent and
20 said, your stuff isn't new.

21 A. I wouldn't expect that.

22 Q. By the way, we've heard in this trial all sorts of
23 testimony about how smart and accomplished AT&T's engineers
24 are. Have you heard that testimony?

25 A. Yes.

1 Q. And we've heard all kinds of testimony about how smart
2 and accomplished Nokia's engineers are, too. Have you heard
3 that testimony?

4 A. Definitely.

5 Q. But you haven't said anything on the stand about AT&T's
6 inventing Mr. Smith's inventions before Mr. Smith did, have
7 you?

8 A. No.

9 Q. And you haven't said anything on the stand about Nokia's
10 inventing Mr. Smith's inventions before Mr. Smith did, have
11 you?

12 A. No.

13 Q. Now, obviously the '775 is a different patent from the
14 '134. Right?

15 A. Yes.

16 Q. And you haven't rendered an opinion that if the '134 is
17 invalid, therefore the '775 is invalid. You didn't give that
18 opinion yesterday, did you?

19 A. I did not.

20 Q. You've gone and tried to show that the '775 is invalid
21 for independent reasons. Right?

22 A. Correct.

23 Q. And in fact, for that matter, you didn't apply your '134
24 non-infringement arguments to the '775, did you?

25 A. They're different patents.

1 Q. I mean, you said the '775 did not infringe, but it was
2 for different reasons than the '134. Right?

3 A. They have different claims.

4 Q. And the prior art combination that you have articulated
5 for the '775 Patent is a combination of McCalister and Lui.
6 Is that correct?

7 A. Correct.

8 Q. Is it Lui or Lui? How do you say it?

9 A. I would say Lui.

10 Q. Lui. Okay.

11 I think DX 19 is the McCalister patent. Does that look
12 familiar to you, sir?

13 A. Yes.

14 Q. And McCalister mentions the word 'intermodulation'.
15 Right?

16 A. Yes.

17 Q. I think you cited that in your direct examination.
18 Correct?

19 A. Yes.

20 Q. It never calls out passive intermodulation, though, does
21 it?

22 A. Yes, it does.

23 Q. Does it use the word 'passive'?

24 A. No, not in those words.

25 Q. It doesn't use the word 'PIM', either, does it?

1 A. It doesn't use the word 'passive', right, PIM.

2 Q. And it doesn't, of course, then say passive
3 intermodulation cancellation. Right?

4 A. No.

5 Q. And it doesn't say PIM-C. Right?

6 A. No, it doesn't mention canceling passive. That's right.

7 Q. Claim 1 of the '775 expressly mentions passive
8 intermodulation. Right?

9 A. Yes.

10 Q. And expressly mentions canceling it. Right?

11 A. Yes.

12 Q. And claim 1 of the '775 also mentions what's known as a
13 power series function. Right?

14 A. Yes.

15 Q. It uses those words. Correct?

16 A. Yes.

17 Q. And it also includes math of that function in the claim.
18 Right?

19 A. Yes.

20 MR. GRINSTEIN: Can we look at column 22, lines 48
21 to 67, of McCalister?

22 Q. (BY MR. GRINSTEIN) Do you see those lines on your
23 screen, sir?

24 A. I do.

25 Q. And there is a discussion in this paragraph about

1 something called a basis function. Do you see that?

2 A. I do.

3 Q. McCalister doesn't use the term 'power series function',
4 does it?

5 A. Well, it shows it right -- there's a power series right
6 there on line I, magnitude of I.

7 Q. Does McCalister use the term 'power series function'?

8 A. No, it doesn't say that.

9 Q. And, in fact, if you look down a little bit in the middle
10 of the claim -- I'm sorry, in the middle of the paragraph,
11 there's a line that says the precise functional relationship
12 is not a critical parameter in the preferred embodiment. Do
13 you see that?

14 A. I do.

15 Q. The '775 put the word 'power series function' right in
16 the claim language. Right?

17 A. Yes, it's right there.

18 Q. No, the '775 --

19 A. Oh, I'm sorry. I thought you were pointing to the power
20 series that I cited to here.

21 Q. Yes. The '775 puts the word 'power series' right in the
22 claim language.

23 A. Yeah, it uses the words, yes.

24 Q. And it puts the math right in the claim language. Right?

25 A. It does --

1 Q. So to the '775 --

2 A. I'm sorry. I was still finishing my answer.

3 Q. Please do, sir.

4 A. Yeah, it claimed one type of implementing a power series.

5 Q. As far as the '775 is concerned, the power series
6 function is a critical parameter. Right?

7 A. Yes. They've claimed a very specific implementation of a
8 power series.

9 MR. GRINSTEIN: I believe the Lui reference is DX 5.

10 Q. (BY MR. GRINSTEIN) And that's a paper entitled, Passive
11 Intermodulation Interference in Communication Systems. Is
12 that right?

13 A. Yes.

14 Q. The Lui reference doesn't disclose some new technology
15 that Mr. Lui developed, does it?

16 A. Well, no. It's been known a long time.

17 Q. I mean, you're not saying that Mr. Lui invented Mr.
18 Smith's PIM-C cancellation technique before Mr. Smith did, are
19 you?

20 A. No.

21 Q. In fact, the Lui reference is just a paper that gives an
22 overview of passive intermodulation interference in
23 communication systems. Right?

24 A. In addition to other things.

25 Q. I mean, the middle sentence of the first paragraph says,

1 This paper gives an overview of passive intermodulation
2 interference in communication systems. Right?

3 A. Yes.

4 Q. And it discusses that this problem is well known. Right?

5 A. Yes.

6 Q. It says that right in the line right before. Right?

7 A. Yes.

8 Q. And then what it does is summarize previous
9 investigations of PIM and discusses systems that measure PIM.
10 Right?

11 A. Yes.

12 Q. Lui never mentions PIM cancellation, does it?

13 A. No.

14 Q. The word 'cancellation' doesn't appear in the Lui
15 reference, does it?

16 A. No, it doesn't.

17 Q. I don't even think cancel appears, does it?

18 A. No. It addresses it through site hygiene.

19 Q. Now --

20 MR. GRINSTEIN: You can take that down, Mr. Boles.

21 Thank you.

22 Q. (BY MR. GRINSTEIN) Now, a patentholder can defend
23 against an obviousness challenge by pointing to some things
24 called secondary considerations of non-obviousness. Is that
25 right?

1 A. That's right.

2 Q. And those are pieces of evidence that show it wouldn't
3 have been obvious to put two references together. Right?

4 A. Correct.

5 Q. And you're aware that Finesse is making a variety of
6 secondary considerations arguments in this case. Right?

7 A. I addressed those.

8 Q. Okay. Did you address all of them?

9 A. I believe so.

10 Q. Well, one piece of evidence that Finesse has cited as
11 relevant to secondary considerations is forward citations.
12 Right?

13 A. Yes.

14 Q. I don't think you said anything about forward citations
15 in your direct testimony, did you?

16 A. Oh, I'm glad to talk about them now if you like.

17 Q. You didn't say anything in your direct testimony about
18 forward citations, did you?

19 A. No.

20 Q. So, you know, Finesse has testified that more than
21 50 -- I'm sorry. Mr. Smith testified that more than 50
22 different later patents cited back to the Finesse patents.
23 Did you hear that testimony?

24 A. I did.

25 Q. But in your direct opinions you disclosed to the jury,

1 you did not analyze that issue.

2 A. I'm glad to talk about it now if you'd like.

3 Q. Well, I want to confine you to what you --

4 THE COURT: Just a minute. He didn't ask you if you
5 were happy to talk about it. He asked you if you did or you
6 didn't. Answer the question.

7 THE WITNESS: I did not.

8 THE COURT: Don't go beyond what the question calls
9 for.

10 THE WITNESS: Sorry, Your Honor.

11 THE COURT: Let's continue.

12 Q. (BY MR. GRINSTEIN) You are responsible for two of those
13 forward citations yourself, aren't you?

14 A. I guess so.

15 Q. Another secondary consideration is long-felt need. Is
16 that correct?

17 A. Yes.

18 Q. And that's the idea that if people had felt that they
19 needed to solve a problem for a long time, then an invention
20 solving that problem is less likely to be obvious because
21 otherwise someone would have come up with it earlier. Is that
22 basically the gist?

23 A. Yes.

24 Q. And I think we were just talking about the Lui reference,
25 DX 5. Is that right? Do you remember that we just talked

1 about this?

2 A. Yes.

3 MR. GRINSTEIN: And can we look at section 6 from
4 Lui, Mr. Boles?

5 Q. (BY MR. GRINSTEIN) In section 6, Mr. Lui discusses that
6 people have been investigating the issue of passive
7 intermodulation for the last 40 years. That's the first line.

8 Right?

9 A. Yes.

10 Q. And Lui is from 1990. Right?

11 A. Yes.

12 Q. So 40 years, that's going back to 1950. Right?

13 A. Yes.

14 Q. Indeed, you know, the excerpt from Lui a little bit
15 further down talks about research conducted on intermodulation
16 between 1947 and 1990. Do you see that?

17 A. Yes.

18 Q. I mean, 1947 is before when you were even born. Right?

19 A. Yes.

20 Q. Another secondary consideration is unexpected results.

21 Is that correct?

22 A. Yes.

23 Q. And you did discuss that secondary consideration in your
24 direct testimony. Is that correct?

25 A. Correct.

1 Q. And the idea here is that if experiments are run and
2 generate surprising results, then it's less likely that an
3 invention is obvious. Correct?

4 A. Yes.

5 Q. And you heard Mr. Smith's testimony about the testing
6 that he did on his inventions. Right?

7 A. Yes.

8 Q. You heard him say that his inventions caused testing
9 orders of magnitude more impact on PIM than he was expecting.
10 Right?

11 A. I did not hear that.

12 Q. Well, you did hear that he was -- he generated results
13 that surprised him. You heard that?

14 A. Yes, I did hear that.

15 Q. And you didn't provide any testimony in your direct
16 examination disputing the results of his tests, did you?

17 A. No.

18 Q. You didn't say he ran his tests wrong, did you?

19 A. No.

20 Q. And you're not here disputing his genuinely-held belief
21 that those results were unexpected to him, are you?

22 A. I'm not.

23 Q. Another one of the secondary considerations is industry
24 praise. Correct?

25 A. Correct.

1 Q. I think it's also called professional approval. Is that
2 right?

3 A. Sure.

4 Q. And that is the idea that if others in industry are
5 praising an invention, it's less likely that the invention is
6 obvious. Right?

7 A. Yes.

8 Q. And you did discuss that secondary consideration in your
9 direct as well. Correct, sir?

10 A. Yes.

11 Q. And, in fact, I think you put up a slide --

12 MR. GRINSTEIN: Can I see Mr. Proctor's slide 107.

13 Q. (BY MR. GRINSTEIN) You put up this slide for the
14 professional approval industry praise, that factor. Correct?

15 A. Yes.

16 Q. And you said that Mr. Smith went to many different
17 companies to try to partner with them and they turned him
18 down. I think that's what you mentioned in your direct.
19 Right?

20 A. Yes.

21 Q. Of course, there could have been business reasons why
22 these companies turned Mr. Smith down rather than technical
23 reasons. Correct?

24 A. Sure.

25 Q. I mean, did you go and interview each of these companies

1 to find out why they didn't partner with him?

2 A. No.

3 Q. I mean, you don't have any idea exactly what their
4 internal reasoning for not partnering with them was, do you?

5 A. I worked at several of them, and I'm from the industry.

6 Q. Oh, so you were there during the pitches when Mr. Smith
7 went to these companies and pitched his technology to them.
8 You were there.

9 A. No, sir.

10 Q. Okay. So you don't know why these companies turned him
11 down, do you?

12 A. Well, as I mentioned, I was -- I worked at several of
13 those companies and I'm from the industry and so I have ideas
14 about why that might be, but I have no definitive facts
15 because I was not at the meeting.

16 Q. I mean, you're not here rendering an opinion on Mr.
17 Smith's business skills, are you?

18 A. No.

19 Q. So, I mean, you don't know one way or the other whether
20 Mr. Smith is good at pitching his ideas to companies, do you?

21 A. I would bet he is.

22 Q. Now, you were here to hear Mr. Smith's testimony in this
23 case. Right?

24 A. I was.

25 Q. On Monday?

1 A. I was.

2 Q. And did you hear his testimony on Monday that Professor
3 Gary Kelson from the University of California-berkeley and
4 Professor Tom Lee from Stanford University reviewed his
5 invention?

6 A. I did.

7 Q. And did you hear his testimony on Monday that they said
8 his invention was totally unique, something they hadn't seen
9 before, disruptive, and elegant? Did you hear that?

10 A. I did hear him say that.

11 Q. Are you here testifying that none of that happened?

12 A. I have no basis for saying that.

13 Q. Did you hear Mr. Smith testify that Professor Lee thought
14 his technology was so good, that he offered Mr. Smith a
15 Stanford Ph.D.?

16 A. Yes, I heard that.

17 Q. And did you hear Mr. Smith's testimony that Nokia, AT&T,
18 and Qualcomm all reviewed his technology?

19 A. Yes.

20 Q. And did you hear his testimony that they all said
21 positive things about his technology?

22 A. Yes.

23 Q. Are you saying that didn't happen?

24 A. Can I correct a previous answer?

25 Q. Absolutely.

1 A. Yeah. He offered -- what I heard was that the offer was
2 to enter the Ph.D. program as opposed to handing him a Ph.D.
3 on the spot.

4 Q. Sure. Fair enough. But if I can ask my question again
5 just to make it clear, did you hear Mr. Smith's testimony that
6 Nokia, AT&T, and Qualcomm all said positive things about his
7 technology?

8 A. Yes.

9 Q. And you're not saying that didn't happen, are you?

10 A. I wasn't there. I can't say.

11 Q. I mean, you put Nokia, AT&T, and Qualcomm on your slide
12 of companies that did not partner with Mr. Smith. Right?

13 A. That's what I heard him say, yes.

14 Q. But in your direct you didn't actually discuss what
15 Nokia, AT&T, and Qualcomm said to him during those partnering
16 meetings, did you?

17 A. I did not, other than they didn't do it.

18 Q. Did you hear Mr. Smith testify on Monday that back when
19 he talked to Nokia and AT&T, they never described his
20 technology as old?

21 A. He didn't address that.

22 Q. Oh. So you didn't hear Mr. Smith testify on Monday that
23 when he went and talked to the Nokia and AT&T, they never said
24 that his -- that they had seen a PIM-C solution like his
25 before?

1 A. I don't recall the exact testimony, but I don't doubt it
2 if you're telling me they said that.

3 Q. I mean, do you recall Mr. Smith testifying on Monday that
4 when he went and talked to Nokia and AT&T, they never said his
5 technology was obvious?

6 A. He did not say they communicated that to him.

7 Q. You think he didn't say that on Monday?

8 A. I'm not -- I'm not sure. Could you state the question
9 more precisely, please?

10 Q. Absolutely. Absolutely, sir. Did you hear Mr. Smith
11 testify on Monday that when he talked to Nokia and AT&T, they
12 never said his technology was obvious?

13 A. Correct.

14 Q. But now you're here testifying on behalf of Nokia and
15 AT&T that his invention is obvious. Right?

16 A. Yes.

17 Q. So did you go and interview those Nokia and AT&T people
18 who spoke to Mr. Smith back before this lawsuit and asked
19 them, why do you guys disagree with me?

20 A. Of course not.

21 Q. That's all the questions I have for you. Thank you for
22 your time.

23 MR. GRINSTEIN: Pass the witness.

24 THE COURT: All right. Is there redirect, Mr.
25 Nelson?

1 MR. NELSON: Yes, Your Honor.

2 THE COURT: Let's proceed with redirect.

3 MR. NELSON: May I proceed, Your Honor?

4 THE COURT: You may proceed.

5 MR. NELSON: Thank you.

6 REDIRECT EXAMINATION

7 BY MR. NELSON:

8 Q. Good morning, Mr. Proctor.

9 A. Good morning.

10 Q. So do you recall some questions yesterday from counsel
11 about a patent of yours with another inventor named Kevin
12 Negus?

13 A. Yes.

14 Q. I think it's -- we called it the '540 Patent?

15 A. Yes.

16 MR. NELSON: And may I have the document camera,
17 please?

18 Q. (BY MR. NELSON) Now, tell us what we're looking at here.
19 Is this the first page of that patent?

20 A. Yes, it is.

21 Q. So now I see there's a column that says, references
22 cited.

23 A. Yes.

24 Q. And then other publications. Can you just tell us what
25 that is?

1 A. Yes. That's the listing of the patents that we disclosed
2 to the Patent Office as well as the patents that the Patent
3 Office found that they considered during examination and then
4 other publications as well.

5 Q. So now I see that it says for both references, the U.S.
6 patent documents and other publications, it says continued.
7 Do you see that?

8 A. Yes.

9 Q. And what does that mean?

10 A. That means this is another patent we got after our
11 initial filing of the first patent.

12 Q. Well, specific to the list of references when it says
13 continued there, what does that mean?

14 A. Yes. Continued means it's -- there were too many
15 references that we disclosed to the Patent Office to include
16 on one page.

17 Q. So now, if I go to the second page, the list continues?

18 A. Yes, it does.

19 Q. And I notice on here, if we look over and, for example,
20 three-quarters of the way down in the first column, there's a
21 number of your own patents there. Is that right?

22 A. Yes.

23 Q. And over in the second column on this, we see another 10
24 or 20 of your own patents cited. Is that right?

25 A. Yes, that's correct.

1 Q. So now if I go to the third page, does that list
2 continue?

3 A. It does.

4 Q. Okay. And now we see other publications. Can you tell
5 us what other publications are?

6 A. Those are journal articles, papers that are published in
7 magazines or other publications.

8 Q. And now if I go to the fourth page, and what do we see
9 here?

10 A. Additional publications.

11 Q. So there is four pages. How many references there do you
12 think that we looked at?

13 A. Oh, a page is 66 lines and two columns. So call it a
14 hundred per page roughly times four. Guessing 400 or so.

15 Q. Okay. So you mentioned yesterday about this idea of a
16 duty to disclose. Can you explain to us what your
17 understanding was of that?

18 A. Yes. When you're getting a patent, you are honor-bound
19 to provide everything you know that's been published as prior
20 art to the Patent Office because you want to be fair. You
21 want to put it all out there.

22 And as an inventor, if I know anything, it's easier to
23 just send it. If it's remotely related, just send it. And it
24 makes the patent stronger if you do that.

25 MR. NELSON: So then if we pull up PX 4, Mr.

1 Horseman?

2 Q. (BY MR. NELSON) So PX 4 is the '775 Patent. Is that
3 right?

4 A. Yes.

5 Q. Now, if we go down to the first page, you see references
6 cited.

7 A. Yes.

8 Q. Do you see that? And there are two. Right?

9 A. Yes.

10 Q. And if we go to the second page, we see another, say, 25.
11 Is that right?

12 A. Yes.

13 Q. Now, in here, just that we're clear, there's two
14 references that say McCalister?

15 A. Yes.

16 Q. Are those different from the patent that you've talked
17 about here for the jury?

18 A. They are. They're the same inventor as the McCalister
19 reference, but it's a different patent, a different
20 disclosure.

21 Q. So would that be similar to, if we just looked at your
22 '540 Patent, you had cited your own patents maybe
23 20-something, 30 times?

24 A. Yes.

25 Q. Okay. Now, you see this legend here for the -- it says,

1 asterisks cited by examiner. Do you see that?

2 A. Yes.

3 Q. And can you tell us what that means?

4 A. There are two ways that patents can -- that publications
5 and patents' prior art can get to the examiner. One is you
6 send them in yourself, your duty to disclose.

7 The other one is the examiner finds them himself when
8 he's searching. They have a big database, and they can search
9 on terms. And if the examiner finds it, it puts an asterisk
10 by the -- the particular prior art.

11 Q. And so if we go back to the -- well, first, while we're
12 on this page, are there any of the references here that don't
13 have an asterisk?

14 A. No.

15 Q. So does that tell you whether Mr. Smith, in terms of the
16 references cited here, submitted any of these references?

17 A. None of these.

18 Q. So now let's go back to the first page. And there were
19 two, and do they also have an asterisk?

20 A. They do.

21 Q. So how many references then did Mr. Smith disclose to the
22 Patent Office when he applied for the '755 [sic] Patent?

23 A. There were none.

24 Q. And with respect to your '540 Patent and your duty to
25 disclose, about how many were disclosed between you and your

1 co-inventor?

2 A. Many. I don't know how many. Most of them.

3 Q. Hundreds.

4 A. Yes.

5 Q. Does that sound fair?

6 Now, the '134 Patent -- we looked at the '540 and you had
7 cited your own patents several times. Right?

8 A. Yes.

9 Q. And why is it that you would cite your own patents when
10 you're trying to get a new patent?

11 A. To make sure the examiner had all the information that
12 was available so he could make a good decision.

13 Q. So is it your understanding that your own patents in some
14 cases can actually be prior art to subsequent patents?

15 A. Yes. It happens.

16 Q. Now, in the list that we just looked at at the '755
17 Patent -- '775 Patent, excuse me, did you see the '134 Patent
18 cited?

19 A. I did not.

20 Q. And the '134 Patent, is that actually prior art to the
21 '775 Patent?

22 A. It is.

23 Q. And so Mr. Smith didn't even disclose that patent to the
24 examiner?

25 A. No.

1 MR. GRINSTEIN: Objection, Your Honor. This
2 violates a MIL with respect to equitable issues. May we
3 approach?

4 THE COURT: Approach the bench.

5 (The following was had outside the hearing of the
6 jury.)

7 THE COURT: This seems like it's getting awful close
8 to --

9 MR. GRINSTEIN: Equitable conduct, Your Honor,
10 that's --

11 THE COURT: -- equitable conduct.

12 MR. NELSON: No, no, I'm not --

13 THE COURT: One at a time.

14 MR. NELSON: Yes, Your Honor.

15 THE COURT: What's your position, Mr. Nelson?

16 MR. NELSON: First of all, I'm done with this line
17 of questioning, but the reason is to respond directly to
18 counsel's cross-examination regarding the disclosure of the
19 patent and what the duties to disclose were.

20 He asked Doctor -- excuse me, Mr. Proctor about that
21 yesterday, and so it's only an explanation of why he disclosed
22 the prior art. The inference was that he disclosed the '755
23 Patent -- '775, excuse me, or at least the application because
24 it was so relevant, and all I'm showing he disclosed every
25 potential thing out there where, in contrast, Mr. Smith didn't

1 disclose anything.

2 THE COURT: You're through with this line of
3 questioning?

4 MR. NELSON: Correct, Your Honor.

5 THE COURT: Let's move on.

6 (The following was had in the presence and hearing
7 of the jury.)

8 THE COURT: Let's proceed.

9 MR. NELSON: Thank you, Your Honor.

10 Q. (BY MR. NELSON) So now can we -- I want to talk about
11 the signal of interest.

12 A. Yes.

13 Q. Do you recall some questions about that yesterday?

14 A. I do.

15 Q. Okay. So now here --

16 MR. NELSON: Could you put up slide 35 from the
17 presentation yesterday?

18 Q. (BY MR. NELSON) So here is the Court's construction of a
19 signal of interest. Can you read that for us?

20 A. "With respect to the receiver, a signal that the receiver
21 is trying to receive and send, in digital form, to the
22 baseband processor."

23 Q. And when you went through your analysis, both for
24 infringement and invalidity, is that the construction that you
25 applied?

1 A. Yes, it was.

2 Q. Okay.

3 MR. NELSON: So now if we could go to your slide 34.

4 Q. (BY MR. NELSON) And what is it that Doctor Wells says is
5 the signal of interest in the accused Nokia radios?

6 A. The transmit signal.

7 Q. Okay. So now let's --

8 MR. NELSON: Mr. Horseman, if we could blow up a
9 little bit the UL(RX) box in the Nahka ASIC. It's the bottom
10 left corner -- or, excuse me, bottom right corner.

11 Q. (BY MR. NELSON) So UL(RX), what is that?

12 A. Uplink receive.

13 Q. So remind us what the uplink is.

14 A. The uplink is the transmission from the mobile phone to
15 the base station.

16 Q. Is that the signal that the receiver is trying to
17 receive?

18 A. It is.

19 Q. Okay. And can you explain to us why that's the case?

20 A. Well, because in two-way communications, the base station
21 already knows what it's transmitting to the mobile and what
22 it's trying to receive is what's transmitted by the mobile to
23 communicate with whomever you're talking to.

24 Q. Now, you were here for Doctor Wells' testimony. Correct?

25 A. Yes.

1 Q. And did you hear Doctor Wells agree that the uplink RX
2 was the uplink receiver?

3 A. Yes.

4 Q. Okay. And is RX a common abbreviation in your industry
5 for the term 'receiver'?

6 A. It is.

7 Q. Okay. So with respect -- if we go back to the Court's
8 claim construction. So with respect to your understanding,
9 what's the receiver in the accused Nokia radios?

10 A. Yeah. The receiver is the whole path up to the baseband,
11 which is the Nahka ASIC. So it includes the GROOT all the way
12 up to the A/Ds --

13 Q. And -- well, let's go back --

14 A. -- and beyond.

15 Q. Let's go back to the previous slide. So here the receive
16 path is, at least in the Nahka ASIC, is where? Into the
17 uplink RX?

18 A. Yes.

19 Q. Okay. So if we trace that path and if we go out, and you
20 talked about this yesterday, but is the receive path comes in
21 the antenna, is that the case?

22 A. Yes.

23 Q. And then the front-end duplexer, remind us what that is.

24 A. That's here. The signal comes through here through the
25 LNA, through the A/D converter, through the uplink signal,

1 desired signal plus actual PIM that wants to be canceled,
2 through the subtractor where the PIM is removed, through the
3 desired uplink path, following the green path to the uplink
4 receive into the baseband chip.

5 Q. Now, the downlink transmit signals or sometimes I think
6 it was referred to as the transmit reference signals --

7 A. Yes.

8 Q. -- are those provided to the uplink receiver in the Nahka
9 ASIC?

10 A. No.

11 Q. And can you explain to us why that's the case?

12 A. Because it has a separate path. This red path we
13 discussed goes through a directional coupler, follows this
14 path to a separate analog-to-digital converter into the
15 modeler to generate the estimated intermodulation where it's
16 subtracted from the desired signal there.

17 Q. And so then does the downlink transmit signal or the
18 transmit reference signal, whoever you refer to that, does
19 that meet the Court's construction of a signal of interest?

20 A. No, it doesn't.

21 Q. Okay. And if we go back to the construction, can you
22 explain to us why that's the case?

23 A. Well, there's two reasons. With respect to the receiver,
24 the whole middle part there, it's not a signal that the
25 receiver is trying to receive and pass to the baseband. It

1 doesn't go to the Nahka ASIC. It never goes there.

2 Q. Now, if we could go back to the previous -- on the red
3 path before you get to the home plate shaped RF ADC there. Do
4 you see that?

5 A. Yes.

6 Q. Okay. So the red path before that, is there any signal
7 on that path called the PIM model or the model PIM signal?

8 A. No.

9 Q. Okay. And were you here for Mr. Davis' testimony
10 regarding that issue yesterday?

11 A. I was.

12 Q. And did he agree with you?

13 A. Yes.

14 Q. Okay. Did you hear Finesse's counsel ever ask him a
15 single question about whether that was accurate or the case?

16 A. No.

17 Q. Now, let's -- I want to talk about closed loop. So do
18 you recall some questions from counsel yesterday about the
19 definition of closed loop?

20 A. Yes.

21 Q. Okay.

22 MR. NELSON: Now, Mr. Horseman, if you could put the
23 Court's claim constructions back up.

24 Q. (BY MR. NELSON) So if we look at the first page, we
25 don't see any definition, any construction of closed loop. Is

1 that right?

2 A. Correct.

3 Q. And if we go to the second page, is there any
4 construction by the Court of the term 'closed loop'?

5 A. No.

6 Q. And if we go to the third page, is there any construction
7 by the Court of closed loop?

8 A. No, there's not.

9 Q. And, finally, if we go to the fourth and last page, is
10 there any construction by the Court of closed loop?

11 A. No.

12 Q. So without a construction of closed loop, what is your
13 understanding of what you're supposed to do in order to
14 determine whether the accused products actually do what's
15 required by the claim in a closed loop fashion?

16 A. They use what's disclosed in the patent and the knowledge
17 of one of ordinary skill in the art.

18 Q. So -- and why don't you from the perspective of one of
19 ordinary skill in the art tell us that understanding of what
20 closed loop is?

21 A. Closed loop is when you have a process, for instance, in
22 this case a subtractor removing interference, and you look at
23 the result, and then you feed it back to the thing that's
24 controlling how well it performs. Like a radio, AM radio, as
25 you turn the dial, you keep going like this until it's right.

1 You go, oh, it's staticky there, it's good, and that's the
2 feedback based on the results. And that's -- that's closed
3 loop.

4 Q. Now, in the accused Nokia radios, do they perform phase
5 and amplitude adjustments in a closed loop fashion?

6 A. In the products, they do not.

7 Q. Okay. And explain to us why that's the case.

8 A. Over the last number of years, there have been
9 significant advances in mathematics in how to do very high
10 performing techniques called open loop. The specific
11 technique is called minimum needs square error. And you take
12 check a copy of something that's bad in this case and you can
13 generate coefficients that make the other thing look exactly
14 like it. In fact, that's higher performing than looking at
15 the result. It's like cloning the signal mathematically.

16 And so you're taking the inputs and you kind of clone the
17 piece of it to make -- figure out how to make one thing look
18 at another. And those are those weights we talk about. And
19 so those weights are applied so that in the data they're
20 using, it matches. But if you keep using those weights, new
21 data will look just like the new signal, too. Okay?

22 So you're using the branches going into the subtractor as
23 opposed to looking at the result. You don't need to look at
24 the result because this works better. It's the same math,
25 this open loop is the same math that has WiFi in your home

1 getting better year after year. It's called MIMO. It's the
2 exact same stuff, and I've used it in -- in products as well.

3 Q. Now, were you -- you were here for Mr. Davis' testimony
4 yesterday. Is that right?

5 A. I was.

6 Q. Now, did you hear Mr. Davis testify at length about the
7 open loop approach in the accused product?

8 A. I did.

9 Q. And did you agree with the way Mr. Davis described that?

10 A. I did.

11 Q. And remind us what portion of the code for the product
12 that Mr. Davis wrote?

13 A. He wrote the GROOT ASIC, most of it -- or FPGA. Sorry.

14 Q. So did you hear Finesse's counsel ask Mr. Davis one
15 single question about the way he described the open loop
16 operation of the accused radios?

17 A. No, I didn't.

18 Q. So I'd just like to ask you a few questions about the
19 Qualcomm.

20 So two -- do you recall Mr. Smith's testimony regarding
21 Qualcomm? You were asked some questions by counsel?

22 A. Yes.

23 Q. Okay. So that was about the 2004 time frame. Is that
24 right?

25 A. It was, yes.

1 Q. Now, the -- according to Mr. Smith, Qualcomm said, We
2 don't have a problem even though we like your technology. Is
3 that basically his testimony?

4 A. Yes.

5 Q. Okay. Now, did you hear Mr. Smith testify that in 2011,
6 he saw public articles that PIM was starting to be or PIM was
7 now a problem in the industry?

8 A. Yes.

9 Q. Okay. And did you hear Mr. Smith's testimony that by
10 2016, pIM was a problem and even a greater problem in the
11 industry?

12 A. Yes.

13 Q. Did you ever hear Mr. Smith testify that he went back to
14 Qualcomm and said, Well, you liked my technology and now there
15 really is a problem?

16 A. I didn't hear that.

17 Q. I thank you, sir. I have no further questions.

18 MR. NELSON: I pass the witness, Your Honor.

19 THE COURT: All right. Is there additional cross
20 examination, Mr. Grinstein?

21 MR. GRINSTEIN: Very briefly, Your Honor.

22 THE COURT: All right. Please proceed.

23 RECROSS EXAMINATION

24 BY MR. GRINSTEIN:

25 Q. Mr. Proctor, Mr. Smith's '134 Patent was in front of the

1 examiner during the '775 prosecution. Correct?

2 A. I don't recall. I don't think it was.

3 MR. GRINSTEIN: Can we see the '775 Patent, please,

4 Mr. Boles? If we go to the second page.

5 Q. (BY MR. GRINSTEIN) You see the list of references cited,
6 U.S. patent documents, Mr. Proctor?

7 A. I do.

8 Q. And if you countdown maybe six or so, what do you see
9 right there?

10 A. I see that the examiner found it, yes.

11 MR. GRINSTEIN: No further questions.

12 THE COURT: Any additional direct?

13 MR. NELSON: No, sir, Your Honor.

14 THE COURT: You may step down, Mr. Proctor.

15 Defendant and Intervenor, call your next witness.

16 MR. DACUS: Thank you, Your Honor. At this time we
17 call Dr. Stephen Becker.

18 THE COURT: All right. Doctor Becker, if you'll
19 come forward and be sworn, please.

20 (Whereupon, the oath was administered by the Clerk.)

21 THE COURT: Please come around, have a seat on the
22 witness stand, Doctor Becker.

23 MR. DACUS: Your Honor, may we approach with some
24 binders and notebooks?

25 THE COURT: You may distribute binders.

1 MR. DACUS: Thank you.

2 THE COURT: All right, counsel. You may proceed
3 with direct examination.

4 MR. DACUS: Thank you, Your Honor.

5 STEPHEN BECKER Ph.D., SWORN,

6 testified under oath as follows:

7 DIRECT EXAMINATION

8 BY MR. DACUS:

9 Q. Doctor Becker, would you introduce yourself to the jury,
10 please, sir?

11 A. Yes. My name is Stephen Becker, and I live in Austin.

12 Q. And what's your role here in this trial, sir?

13 A. So I am an economic and financial expert, and I'm here as
14 the AT&T and Nokia's damages expert.

15 Q. Okay. And for our discussion and question and answer
16 today, have you prepared some slides to both assist us and
17 help the jury in our discussion?

18 A. I have.

19 Q. Okay. Would you give the jury a thumbnail sketch of your
20 educational background, please, sir?

21 A. Sure. I started out at the University of Pennsylvania
22 with a Bachelor of Science, a BSE, in computer science and
23 engineering, and my concentration was in computer science and
24 electrical engineering. I got that in 1981.

25 I then worked in industry for a while. And back then in

1 1984, I went to the University of Texas at Austin where I got
2 an MBA with a concentration in finance.

3 I then again went out and worked for a number of years.

4 And then in around 1991, I enrolled in the Ph.D. program at
5 the University of Texas and received a Ph.D. in public policy
6 with a concentration in an area called econometrics.

7 Q. Would you also tell the jury a little bit about your
8 professional work background, please, sir?

9 A. Sure. The first two logos there on the top of the
10 screen, when I got out of my engineering program at the
11 University of Pennsylvania, I went to work for a company in
12 Houston called Schlumberger. It's the -- I think at the time
13 was the largest oil field services company in the U.S., and
14 actually worldwide. I was a systems engineer in their R&D
15 labs in Houston.

16 I left the Schlumberger to start a small computer systems
17 company called The Solutions Group, and I had that company
18 until I decided to go back to get my MBA at the University of
19 Texas.

20 After I finished the MBA program, I went to work for a
21 company called Booz Allen & Hamilton. It's a very large
22 international management consulting company. I was based in
23 Dallas and basically traveled all over North America doing
24 business and economic strategy consulting.

25 The logo there Becker & Associates is a firm that I had

1 while I was getting my Ph.D. I had to find a way to pay for
2 the schooling, and so I hung out a shingle and did some
3 consulting work.

4 And then the last logo there is Applied Economics.
5 That's where I work now. It's a firm that I formed in 1999,
6 and initially it was just myself and my partner. And we've
7 grown that firm to about 25 people now in Austin and Houston
8 primarily.

9 Q. And can you give the jury a little more flavor on what
10 you do at Applied Economics?

11 A. So at Applied Economics, what the firm does and what I do
12 is kind of what's embedded in the name. We do applied
13 economics. Most of the work that we do and that I do is
14 focused on using economic tools to value things. We do some
15 business valuation.

16 I do -- my primary area of work is in valuing
17 intellectual property and patents, and we also do a lot of
18 valuation of other types of assets.

19 Q. During your 25 years or so of doing this, can you give
20 the jury some sense of how many times you've served as an
21 expert and analyzed patent infringement damages and royalties?

22 A. Yes. I've provided, at least by report, expert opinions
23 on patent damages and the value of patents in cases like this
24 over 150 times.

25 Q. And these are situations, to be clear, where you're

1 analyzing, reviewing information, coming to conclusions about
2 negotiations between parties related to a patent license and
3 the appropriate royalty. Is that right?

4 A. Yes. In every one of those, that's sort of a basic
5 framework and question that I've been asked to answer.

6 Q. Now, as you know, this case relates to the
7 telecommunications industry and telecommunications patents.
8 Can you give the jury some sense of whether or not you have
9 any experience in that specific regard?

10 A. Yes. I -- the very first patent case where I ever served
11 as an expert on patent damages was not only in the
12 telecommunications area, it was on digital cellular
13 communication systems like the ones that are at issue in this
14 case. That was almost 25 years ago, back when cell phones --
15 the very first digital cell phones were -- I don't know if
16 anybody remembers, but they were the size of a brick or they
17 called them bag phones.

18 And I worked as a damages expert on one of the very first
19 sort of big patent cases related to the first generation of
20 digital cellular. And then over the ensuing 20-plus years, I
21 have worked on patent infringement questions in every single
22 generation. We refer to sort of currently LTE that's on most
23 people's phones as 4G cellular. Things are coming out with 5G
24 now, but there have been 1G, 2G, 3G, 3 and a half G, 4G.

25 I've had provided expert opinions on patent values in

1 every one of those sort of generations of cellular systems
2 since the very first.

3 Q. In your experience, have you participated in, been an
4 expert in, these cases on behalf of both patentowners and
5 accused infringers?

6 A. Yes. So over the course of my career in that, say, 150
7 patent cases that I've worked on, I've been on -- working and
8 providing opinions for the patentholder about half the time
9 and for the accused infringer or defendant about half the
10 time.

11 MR. DACUS: Your Honor, at this time we would tender
12 Doctor Becker as an expert on patent infringement damages.

13 THE COURT: Is there objection?

14 MS. FAIR: No objection.

15 THE COURT: Without objection, the Court will
16 recognize this witness as an expert in that particular field.

17 Please continue.

18 MR. DACUS: Thank you, Your Honor.

19 Q. (BY MR. DACUS) Doctor Becker, would you at a high level
20 tell the jury what your specific assignment was in this case?

21 A. Sure. I really had two assignments. The first was to
22 look at the facts and circumstances of this case, review the
23 evidence, and develop an independent opinion about a
24 reasonable royalty, what a reasonable royalty would be for the
25 '134 and '775 Patents if there's a finding that AT&T and Nokia

1 have infringed and that those patents are not invalid.

2 The second category of my assignment was to respond to
3 Doctor Bazelon, Finesse's damages expert, look at what he did,
4 understand his models and develop opinions about whether I
5 think those are reliable or not.

6 Q. Now, you understand AT&T and Nokia say we do not infringe
7 these patents. Correct?

8 A. I understand that.

9 Q. And we say that these patents weren't new and therefore
10 they're not valid.

11 A. I understand that, yes.

12 Q. You also understand because you've done this, neither
13 AT&T nor Nokia nor I nor you nor anyone at that table gets to
14 make that decision. Right?

15 A. That's correct.

16 Q. That's the jury's decision.

17 A. That's correct.

18 Q. So in the event that the jury were to decide there was
19 infringement here, is your role to provide them with evidence
20 to make a decision on damages if they get that far?

21 A. It is. That's why I have to assume kind of a world where
22 I just put the question of whether there's infringement or
23 validity aside and say, if this becomes a question that the
24 jury has to answer, what is the appropriate or reasonable
25 royalty.

1 Q. Give the jury some indication of what information you
2 looked at and relied on in coming to your conclusions.

3 A. So there are lots of documents produced in a case like
4 this. Back in the day, a long time ago, it was literally
5 mountains of documents, boxes, and rooms full of boxes of
6 documents. Thankfully today it's all digital. But still it's
7 lots of documents from AT&T, Nokia, and Finesse, a lot of
8 court documents.

9 There's also expert reports and trial testimony and
10 depositions that my staff and I have read. And then I've had
11 discussions with Mr. Proctor, the technical expert for AT&T
12 and Nokia, and also discussions with Mr. Taylor, the engineer
13 at AT&T who -- I think he was described as the PIM guy. I had
14 several discussions with him.

15 Q. We're going to dig into the details, but would you give
16 the jury a summary of your opinions and then we'll go into
17 exactly how you reached those?

18 A. Sure. It's my opinion that, looking at these patents and
19 the facts and circumstances of this case, that the reasonable
20 royalty would be what we call a non-exclusive U.S. license to
21 the patents starting in July of 2018, and if the '775 Patent
22 and really if it's the '775 or both the '775 and the '134
23 Patent are valid and infringed, it's my opinion that the
24 reasonable royalty is \$1.35 million. And if only the '134
25 Patent is valid and infringed, that one expires in 2024, next

1 year, so the time period is much shorter and the number there
2 would be \$531,000.

3 THE COURT: Ladies and gentlemen, I expect this
4 examination to go considerably longer. I think this is
5 probably a good place to take a short break and at this point
6 I'm going to ask you simply to leave your notebooks in your
7 chairs, follow all my instructions, including not to discuss
8 the case among each other, and I'm going to excuse you for a
9 short recess at this time.

10 We'll be back shortly and continue with Doctor Becker's
11 direct examination.

12 The Court's excused for recess. Excuse me. The jury's
13 excused for recess, but the Court's going to take one, too.

14 (Whereupon, the jury left the courtroom.)

15 THE COURT: We'll try to keep this short. The Court
16 stands in recess.

17 (Brief recess.)

18 THE COURT: Be seated, please.

19 Mr. Dacus, are you prepared to continue?

20 MR. DACUS: Yes, Your Honor.

21 THE COURT: All right. And are you intending on
22 using the chart like that?

23 MR. DACUS: Yes, Your Honor.

24 THE COURT: Okay.

25 MR. DACUS: If that's okay with the Court.

1 THE COURT: That's fine.

2 Let's bring in the jury, please.

3 (Whereupon, the jury entered the courtroom.)

4 THE COURT: Please be seated.

5 We'll continue with the direct examination of Dr. Stephen
6 Becker.

7 Mr. Dacus, you may proceed.

8 MR. DACUS: Thank you, Your Honor.

9 Q. (BY MR. DACUS) Doctor Becker, when we left off, you had
10 just given us your summary of opinions with respect to your
11 calculation of a reasonable royalty.

12 I want to just at a high level if you would -- you also
13 told the jury that your second assignment here was to look at
14 what Mr. -- Doctor Bazelon did in this case, and we're going
15 to discuss that in detail.

16 But just as a preview, can you give the jury what your
17 assessment is of what Doctor Bazelon has done in some of his
18 assumptions?

19 A. Sure. Obviously we're far apart on our opinions, and I
20 think the primary reasons why Doctor Bazelon gets to a place
21 that's, I think, incorrect and unreasonable, first is that he
22 dismisses important market evidence. We'll talk about that.

23 The second is a fundamental assumption that he makes
24 where he says that AT&T's value comes from the sort of
25 spectrum value, the value of using the PIM-C. I think the

1 evidence I've looked at and the testimony I've heard said that
2 the value comes from a voided site hygiene cost. This is one
3 of the tools in the tool kit for dealing with internal PIM,
4 but the primary thing is site hygiene. And so that's a big
5 difference of opinion.

6 Third is that he unreasonably assumes that every radio
7 out there that has the PIM-C turned on, that it must mean that
8 there is not just detectable amounts of PIM but enough PIM in
9 the radio, internal PIM, that if you didn't have it turned on,
10 the -- you know, it would be chewing up a bunch of spectrum,
11 and that's just not the case.

12 And, finally, he has some errors that are technical
13 errors in his model that I think lead to contribute to the
14 overstatement of the damages.

15 Q. Let's begin by looking at the details of how you went
16 about calculating a reasonable royalty in this case. So tell
17 the jury where you start from, please, sir.

18 A. So in any patent case like this, this is a technique I've
19 used for all of those 150-plus cases that I've worked on. I'm
20 asked to imagine that the parties on the patentholder, Finesse
21 Wireless in this case, and the potential licensee, or the
22 accused infringer, what if they had sat down at a table and
23 actually negotiated a license to these patents, what would a
24 reasonable outcome be and something that is reasonable and
25 acceptable to both sides.

1 Q. Okay. And I see here on the slide you have Finesse on
2 one side, AT&T on another, and also Nokia. Correct?

3 A. Yes.

4 Q. So Nokia would be in your hypothetical a part of this
5 negotiation?

6 A. Yes. In my opinion they would be at the negotiation. As
7 we've heard, they -- all of the radios that are accused in
8 this case are Nokia radios. It's the only thing that's
9 accused. And the only thing within those radios that's
10 accused is this PIM-C software that Nokia designed and
11 implemented. And they have intervened in this case and are
12 effectively a defendant, so I put them at the table to be part
13 of the negotiation.

14 Q. And when does this negotiation occur?

15 A. So it occurs in July of 2018. And that date is triggered
16 by the first use of the PIM-C by AT&T in one of the accused
17 radios that the evidence indicates that that's when the
18 software was released and pushed out into the field for the
19 radios that AT&T has.

20 Q. Do you make some assumptions that are required by the
21 Court in this case?

22 A. Yes. So in this negotiation, some aspects of it are like
23 a real negotiation and other aspects are -- I have to sort of
24 impose some -- some assumptions.

25 First, I have to assume and I assume the parties at this

1 negotiation would understand the patents to be valid and
2 enforceable. They would also understand that they need to
3 reach an agreement on a license. They're not there saying, we
4 don't use it. AT&T and Nokia are here and have the right to
5 say that in this courtroom, but at the hypothetical
6 negotiation they're all saying, look, we need reach an
7 agreement about this, what's going to be reasonable.

8 On the right there, the reasonable knowledge and
9 expectations and same information, this is a negotiation where
10 the -- essentially the cards are dealt face up instead of
11 people holding information close to the vest. So things that
12 Finesse would know that maybe AT&T wouldn't know in the real
13 world, they're going to know in this negotiation. And the
14 same information goes the other way.

15 Finally, both sides are going to act in good faith and
16 must reach an agreement.

17 Q. So how is it that you go about determining what the
18 result of this negotiation would have been?

19 A. Well, the good news is there's -- there is a case from
20 1970 called the *Georgia-Pacific* case that was a patent case.
21 And in the opinion that the Court wrote on that, they sort of
22 set out this concept of a hypothetical negotiation as a way to
23 figure out what would be reasonable.

24 And in that ruling or in that opinion, they didn't just
25 say, use this hypothetical negotiation sort of construct; it

1 laid out 15 factors, sort of a checklist of factors that might
2 be considered in the determination of the outcome of the
3 negotiation.

4 Q. We don't need to go through them at this point, but is
5 this a listing of the 15 factors that you considered and
6 should consider?

7 A. It is. This is -- this is a list of the factors and this
8 is the sort of checklist that I start with in every patent
9 case that I work on.

10 One example would be, for example, that very first one on
11 the top left, licenses to the patents-in-suit. Just like if
12 you were a real estate appraiser trying to figure out the
13 value of a house, one of the first things you may do is look
14 to see whether there's any market evidence of that house being
15 sold or similar houses being sold, sort of comparables. And a
16 couple of the factors look at that market evidence.

17 Q. Are there specific factors in this case that you consider
18 more important than others?

19 A. Yes. So I always go through the list and consider them
20 all, and in each case the evidence sort of leads you in one
21 direction or another. And in this case, the nature of the
22 technology and the -- the ways in which it creates value sort
23 of lead me to the four factors that I have highlighted here
24 that really look at the question of the benefits provided to
25 AT&T by this patented technology.

1 And so we're looking at the advantages of the technology
2 over the prior art, you know, what's the nature of the
3 benefits. That's an important thing, what is the nature of
4 the benefits, and we'll talk about that. This is related to
5 site hygiene.

6 Q. So describe for us, if you would, what you -- what you
7 found with respect to the benefits of the patented technology
8 in this case and that impacts your reasonable royalty?

9 A. Yes. So three primary conclusions that I reached about
10 that whole sort of technical benefits and the way AT&T derives
11 benefits, first is that AT&T primarily uses site hygiene to
12 resolve internal PIM issues, addressing the root cause. If
13 there's a loose connector, they go fix it.

14 Second is a very small fraction of the radios in AT&T's
15 network at any given point in time are going to be
16 experiencing internal PIM at problematic levels. We heard Mr.
17 Taylor talk about that quite a bit.

18 And, finally, that the economic benefit to AT&T from the
19 Nokia PIM-C software is avoided trips out to the tower --
20 either avoided or delayed trips out to the tower, to go fix
21 the cable or the connector or the antenna that's causing the
22 internal PIM.

23 Q. You were here when Doctor Bazelon testified. Correct?

24 A. Yes.

25 Q. And we're going to go through his assumptions in a

1 minute, but just so -- as we go through this, your first point
2 that AT&T primarily uses hygiene, you know that Doctor Wells
3 and Doctor Bazelon on behalf of Finesse, you heard them both
4 say that your assumption is site hygiene does not cure
5 internal PIM. You heard them say that?

6 A. Yes, I heard that, and obviously at the time I wrote my
7 report, I hadn't heard that. But certainly in Doctor Wells'
8 report and in Doctor Bazelon's report, he makes it very clear
9 that he based his opinion on an assumption that site hygiene
10 was not an alternative to reducing PIM or curing PIM with
11 PIM-C.

12 Q. Likewise, with respect to your second bullet point, that
13 a small fraction of radios have problematic PIM, you were here
14 when Doctor Bazelon said his assumption was that if PIM
15 cancellation was on, that PIM was present. So that's another
16 disagreement between the two of you?

17 A. It is.

18 Q. Let's dig into this site hygiene issue. Explain to the
19 jury the basis for your assumption and your conclusion that
20 AT&T utilizes site hygiene to cure this internal PIM issue.

21 A. So my first basis here was talking to Mr. Taylor who, as
22 we heard, is the PIM guy at AT&T. I had several conversations
23 with him. And what he told me is also reflected in a number
24 of different documents, which is that internal PIM, the nature
25 of that, it's the loose connector, it's something in the cable

1 from the radio to the antenna or right there on the tower.
2 It's not the parking garage across the street, the
3 air-conditioning unit, you know, coming on and off. It's just
4 right there in the feed line.

5 And he made it very clear to me that those are
6 identifiable problems when they do crop up and they just go
7 fix them. They're not going to leave them to just be causing
8 problems. Since they know how to fix it, it's easy.

9 Q. As part of your work, do you agree that it's important to
10 make sure we are distinguishing between external and internal
11 PIM in this case?

12 A. Yes. That was one thing that became very clear to me
13 looking through the documents is that external PIM, things
14 caused by like the air-conditioning unit on the building
15 across the street that comes on and goes off and comes on and
16 maybe is causing problems when it's on but not when it's off,
17 that's all external PIM. And both Mr. Taylor and the
18 documents reflect that that's a very challenging problem, very
19 challenging. But that's not what the PIM-C in this case
20 addresses.

21 So I don't think there's any dispute that the Nokia
22 software only addresses that internal line PIM. And so it's
23 really important to distinguish between the two because there
24 are documents that suggest that the external PIM is a really
25 big problem, but that's not what we're talking about.

1 Q. You were here in the courtroom for both Mr. Loddeke's
2 testimony and Mr. Taylor's testimony. Correct?

3 A. Yes.

4 Q. And based on that and the information that you have in
5 this case, what do you understand AT&T's strategy to be for
6 dealing with and curing internal PIM?

7 A. So two main things. If we click on the first click on
8 this slide, this is this sort of various steps. We saw this
9 document, I think, with Mr. Loddeke.

10 And this first one, for me at least, is very important,
11 which is that AT&T does not accept a cell site or a new radio
12 installation from its vendors unless it has been demonstrated,
13 not just assumed to be free of internal PIM, it's demonstrated
14 through testing, sort of like when you go to a car dealership
15 to pick up your new car, you're going to walk around and at
16 least make sure it's in perfect condition because it's brand
17 new. You're not going to drive it off the lot with squeaky
18 brakes or rattles or, you know, wobbly tire. So the very
19 first thing they do is make sure they never put a cell site or
20 a radio into service if it's not absolutely PIM free.

21 And so given that, that's the sort of first three steps,
22 you're not going to have internal PIM on anything unless it
23 has sort of crept in over time. And the last step there --

24 Q. Let me ask you this. What do they do if -- what's your
25 understanding of how AT&T addresses the internal PIM if you

1 issue -- if it does creep in over time, so to speak?

2 A. So this fourth step in the -- in the sort of chain of
3 events is post installation, and we can see here that the PIM
4 problems are addressed primarily with in-depth PIM clean-up.
5 And this is consistent with what I learned from Mr. Taylor and
6 heard from Mr. Loddeke's testimony.

7 Q. In the course of your work in this case, did you see
8 anything or did you hear anything from -- in the course of
9 this trial that said AT&T would cure this internal PIM issue
10 by going to buy spectrum?

11 A. No.

12 Q. Based on your expert analysis, would going buy spectrum
13 be a reasonable economic cure for this internal PIM issue?

14 A. No, it wouldn't. I mean, it's -- as we heard Mr. Taylor
15 say, they -- if internal PIM is present, it's not a mystery
16 how to fix it, they just need to send somebody out to fix it.

17 Q. And so I want to make sure we have a clear answer on this
18 issue. With respect to the PIM cancellation process that's in
19 these products, is it your position or AT&T's position that it
20 is completely worthless?

21 A. No, not at all. It -- it does provide value. And we'll
22 talk a little more about the way it provides value with some
23 real actual numbers, but it provides value as a tool, one of
24 the tools in the toolkit. And the real value is in delaying
25 or avoiding some quantity of site visits to fix the PIM. But

1 the PIM is going to be fixed eventually by a site visit.

2 Q. To be clear, we believe the PIM cancellation in the Nokia
3 products works differently from the patent. Correct?

4 A. Yes.

5 Q. But to the extent the jury's determining the value of it,
6 we believe it has a value, just not a significant one. Is
7 that fair?

8 A. Well, I think, you know, the value that I've calculated,
9 I frankly consider that it's in the millions of dollars of
10 overall value that I believe should be shared -- would be
11 shared in a hypothetical negotiation with Finesse. That's
12 significant, but it's not the magnitude of numbers that Doctor
13 Bazelon's assumptions lead to.

14 Q. Very good.

15 Tell us about your second benefit that you've looked at
16 with respect to the PIM cancellation technology.

17 A. So the second critical question is, how prevalent is
18 internal PIM. And my conclusion from the evidence is that a
19 very small fraction of the radios, the Nokia radios that have
20 this PIM-C capability, in only a small fraction of those would
21 there be internal PIM present if you didn't have the PIM-C.

22 Q. And what's the basis for you saying that?

23 A. Well, one -- my initial basis is talking to Mr. Taylor
24 and understanding in particular that they won't accept a cell
25 site if it has internal PIM. And so since the internal PIM

1 comes from -- if it's present, it's coming from some sort of
2 defect in the components or in the way they were installed, if
3 you have this strict policy of never accepting a cell site
4 until it's been proven to be internal PIM free, that by itself
5 says that it's not going to be very prevalent.

6 Also, then the process they go through to address the
7 internal PIM further reduces the likelihood that it would
8 occur. And there's also data that suggests that kind of
9 allows me to calibrate how much there is.

10 Q. Were you here when Mr. Taylor, Mr. Mike Taylor,
11 testified?

12 A. Yes.

13 Q. And you saw him present that data or information about
14 the measurement of how often internal PIM is present?

15 A. Yes, I was here for that.

16 Q. Okay. And is that information you had before this trial
17 through your discussions with Mr. Taylor and in performing
18 your calculation?

19 A. Yes. I rely on -- on that same data that he presented
20 for some of my calculations.

21 Q. What did that data or information say to you and how does
22 that fit into your analysis?

23 A. So what -- what I can infer in sort of and sort of my
24 take-away from the test data that Mr. Taylor presented is that
25 if we sort of look at all the Nokia radios in the network, and

1 this number here, 84,733, that's -- that's the number of
2 accused Nokia radios in 2020, just pull that number as an
3 example, Mr. Taylor's test data suggests, and I think gives a
4 pretty strong indication, that less than two percent of those
5 radios have problems in the line, with the connector, or
6 something that would be causing any amount of detectable
7 internal PIM.

8 Q. Now, with respect to this less than two percent number,
9 did you have information or did you rely on information that
10 Mr. Taylor presented to the jury just yesterday?

11 A. Yes. So this table is essentially sort of my version of
12 the table that he presented, and I think he talked about these
13 two numbers. The top one that I've got is the detectable
14 levels of PIM. This is where he ran the test, and it's 1.98
15 percent. So less than 2 percent have even detectable levels.

16 But as he explained, the point at which it
17 becomes -- would even be impacting the performance of the cell
18 site is quite a bit -- you need quite a bit more internal PIM
19 than just detectable PIM, and that's that lower number the
20 1.19 percent, which is impacting what we call KPIs, the key
21 performance indicators, for the way the radio is performing.

22 Q. Was there information in the study done by Mr. Taylor and
23 AT&T that also told you whether or not in that 1.19 percent of
24 times that internal PIM is above the threshold, whether or not
25 PIM cancellation actually works to cancel it?

1 A. Yes. So the -- the nature of the test that -- and
2 analysis that Mr. Taylor was able to do tells us two
3 interesting things. One is how prevalent is it, but also
4 because he can look at where it's on versus where it's not on,
5 we see that the PIM cancellation technology actually only sort
6 of fixes the problem. If you were having an impact on the
7 KPIs, turn it on, it doesn't make it all go away. It's only
8 in about 30 percent of the sites would you expect that the PIM
9 cancellation software gets you back into sort of the -- where
10 it isn't impacting the KPIs.

11 So the take-away is that it's not happening very
12 frequently, and where it is happening the PIM cancellation
13 software is in the Nokia radios that's accused is only curing
14 the problem 30 percent of the time.

15 Q. Let's compare this data and information from AT&T that
16 you relied on to Doctor Bazelon. And how much of the time did
17 Doctor Bazelon assume that internal PIM was present?

18 A. 100 percent of the time.

19 Q. So --

20 A. Well, let me -- let me clarify. He assumes that -- he
21 looks and he sees that the PIM cancellation software is on in
22 78 percent of the radios in the -- of the Nokia radios that
23 have it as a capability. He assumes that if it's on, there
24 must be not just any PIM but enough internal PIM that it would
25 be causing problems in a hundred percent of those where it's

1 turned on.

2 Q. So for those turned on, Doctor Bazelon assumes a hundred
3 percent. Correct?

4 A. Yes.

5 Q. AT&T's study and the information you relied on says it's
6 present in 1.19 percent at a detectable level. Is that a fair
7 summary?

8 A. Well, at a level that's impacting performance. Less than
9 2 percent, right about 2 percent at even detectable levels,
10 whereas he's assuming a hundred percent.

11 Q. Now, with respect to the number of times in that 1.19
12 percent that PIM cancellation actually cancels the internal
13 PIM, what does Doctor Bazelon assume in this second one?

14 A. A hundred percent.

15 Q. A hundred percent.

16 A. A hundred percent.

17 Q. And the information you relied on from AT&T would say how
18 much percent?

19 A. Roughly 30 percent. A little less than a third.

20 Q. What's the third piece of information or the third
21 benefit that you looked at in your analysis?

22 A. So my third sort of key finding here is that the -- as an
23 economist, when I'm going to say, okay, now I've looked at
24 this technology, how it's used, what impact is it having, what
25 is the economic benefit. And it's very clear to me that the

1 economic benefit that AT&T receives from this Nokia PIM-C is
2 cost savings in the form of a reduced number of site hygiene
3 visits. They can go out there less frequently and sort of let
4 the fix happen later or maybe actually avoid some trips out to
5 the towers.

6 Q. Were you able to put this economic benefit to AT&T in
7 dollars and cents?

8 A. Yes.

9 Q. Explain to the jury how you went about calculating the
10 saved costs or saved hygiene costs.

11 A. Right. So what I've got right here is the sort of path I
12 followed to get from the data to a cost savings attributable
13 PIM-C. First is -- that first box is just what's the total
14 number of radios out there that have this PIM-C on it.
15 Obviously if it doesn't have PIM-C on the radio, you're not
16 going to get any benefit from it.

17 Second is the percent of sales that have -- that would
18 have internal PIM problems, any problem for the software to
19 cancel.

20 Third is that thing we just talked about, which is that
21 what percent of the time does PIM-C actually solve the
22 problem.

23 If I take those three factors, I get the number of
24 avoided site hygiene visits. I can then take that avoided
25 site hygiene visit number and multiply it by the cost per site

1 hygiene visit, and that gives me the cost savings that are
2 attributable to having this Nokia PIM-C software.

3 Q. How did you go about filling in the -- the numbers that
4 you needed to make that calculation?

5 A. Right. So the first number, the number of radios in the
6 network, AT&T produced a bunch of data that lets us count up,
7 and I think Nokia produced data, too, that Doctor Bazelon and
8 I have access to that tells us how many radios are out there
9 during any given point in time that have this PIM-C
10 capability. So I've got that.

11 Second is those factors of the prevalence of internal PIM
12 and how frequently the PIM-C software will fix it, come from
13 that national test data that Mr. Taylor talked about.

14 The third key thing that I need is the cost-per-site
15 hygiene visit.

16 Q. Let's talk about how you obtained that information.

17 A. So this comes from a document that I believe Mr. Loddeke
18 talked about. AT&T tracks its -- they use third-party vendors
19 to go out to the towers whenever there's a problem. They will
20 generate what's called a trouble ticket or a repair ticket
21 when they have a problem, need to send somebody out. And then
22 the vendor goes out and they send people up the tower and they
23 fix it, or they do what they can. And they keep track of this
24 data.

25 And we can see they keep track of it by year, which is

1 good, and they keep track of it -- they sort of separately
2 track internal PIM trouble visits versus internal PIM visits.
3 That's good. Allows me to get more precise. And then,
4 finally, they even track it by the type of radio. So we've
5 got a number by year for the tower visits to address internal
6 PIM specific to the Nokia/Alcatel-Lucent radios.

7 MR. DACUS: Ms. Brunson, may I have the document
8 camera briefly, please? Thank you.

9 Q. (BY MR. DACUS) I want to ask you about one issue
10 on -- do you remember Mr. Taylor presented the studies
11 yesterday about when PIM is present? Do you remember that?

12 A. Yes.

13 Q. You were here when Mr. Ward questioned him about whether
14 or not that was a one-off?

15 A. Yes.

16 Q. And you remember Mr. Taylor saying, no, I think internal
17 PIM is consistent. So it's not a one-off since it's
18 consistent; we can use that data and information. You were
19 here for that testimony?

20 A. Yes.

21 Q. Now, what I have on the screen here, this is information
22 you've seen. Correct?

23 A. Yes.

24 Q. This is the information that you were just showing us the
25 summary of related to the tower vendor repairs?

1 A. Yes. I rely on this exactly what you've got up on the
2 screen for my analysis.

3 Q. How long of a period does this cover?

4 A. Oh, about six years. It's 2017 through 2022.

5 Q. Okay. And so on this issue of whether or not internal
6 PIM is consistent, is it true that if we want to know the
7 number of times that internal PIM was repaired, there was a
8 ticket generated, we can look at this line item PIM/RSSI?

9 A. Yes, it's highlighted in yellow in every year of this
10 table.

11 Q. And remind us, this is about out of a million radios in
12 the network. Correct?

13 A. Yes. So this isn't limited just to radios that are at
14 issue in this case. This is all the internal PIM issues
15 across the whole network, which is just shy of a million
16 radios.

17 Q. So for this six years or so, if we wanted to look at
18 internal PIM and how many tickets were generated, that would
19 be the numbers that I'm putting a red dot beside. Is that
20 accurate?

21 A. It is.

22 Q. And so, roughly speaking, each year it's about 3,000
23 tickets for internal PIM. Is that fair?

24 A. Give or take, yes. But it's -- considering the magnitude
25 of the number, it's pretty consistent.

1 MR. DACUS: If we can go back to the display Ms.
2 Brunson? Thank you.

3 Q. (BY MR. DACUS) Let's finish up your discussion on the
4 calculation of the saved costs if we could, Doctor Becker.

5 A. Yes. So before I had the sort of graphic of the
6 ingredients here, I'm going to walk through how the actual
7 numbers work. And I'm using 2020 as an example year. So the
8 first step was the total accused radios. In 2020, that's
9 84,733.

10 Q. Can I pause you there? Doctor Bazelon used 64,000; you
11 use 84,000. Is there -- how do we -- why is there a
12 difference?

13 A. Well, he's only looking at the radios where it's actually
14 turned on, and then he assumes in those that there's a big
15 problem in all of those. To be conservative, I'm applying
16 this calculation to all the accused radios that have the PIM-C
17 capability, whether they at any given point in time have it
18 turned on or not.

19 Q. Okay. I apologize for interrupting. Please continue.

20 A. Okay. Then we've got to 1.19 percent, how often is there
21 going to be a problem if you didn't have the PIM-C capability.

22 Q. Let me pause you there. One additional question with
23 respect to this total accused radios of 84,000. How many
24 radios are there in the total AT&T network?

25 A. Just under a million.

1 Q. Okay. And to the extent the jury has been left with the
2 impression that every Nokia radio in the network has PIM
3 cancellation, is that a correct assumption?

4 A. No. About 30 percent of the network is Nokia radios.
5 So, round numbers, between 250- and 300,000 Nokia radios in
6 the network and only 84,000 of those. So very -- maybe it's 8
7 percent of all the radios in the network, and a pretty small
8 fraction of the Nokia radios are the ones that have this
9 capability.

10 Q. So from what I heard you say, the bottom line is there
11 are several hundred thousand Nokia radios in the AT&T network
12 that do not have PIM cancellation.

13 A. Yes.

14 Q. Okay. What's the next thing you did in your calculation?

15 A. So taking that, what I call, the incidence rate, what's
16 the likelihood that you have a radio that has internal PIM, I
17 can get to an estimate that there would be 1,308, just over a
18 thousand radios, with internal PIM where you've got a loose
19 connector or something going on that's impacting KPIs.

20 I then apply --

21 Q. What's the next step?

22 A. I'm sorry. I then apply -- we've got hard data that says
23 this PIM cancellation software doesn't fix all of those. In
24 fact, it's only -- it's less than a third. So I apply that
25 factor of 29.8 percent, and that tells me that the PIM

1 cancellation software, my estimate is that they would delay or
2 outright avoid a trip out of the tower in 300 towers, 301.

3 Q. And so how do you take that number and turn it into a
4 saved dollar amount?

5 A. So that's an easy step which is we have these costs that
6 are tracked very detailed by year. I can take in 2020, it was
7 \$2,619. And that gives me an avoided cost for 2020, if we
8 click the next click, of \$788,017.

9 Q. And then how do you go about calculating the amount of
10 royalty based on these saved costs?

11 A. So I've got a -- you know, it wouldn't be rational to
12 charge as a royalty all the benefit that you're going to get.
13 There has to be some savings of that because it's a
14 negotiation over the amount of the benefit that really it
15 should be -- is attributable to pay to Finesse as opposed to
16 AT&T needs to keep it.

17 So there I looked to Doctor Bazelon. He has a model that
18 he uses to kind of figure out in a negotiation between Finesse
19 and AT&T what Finesse would -- what's a reasonable share for
20 them. 17.6 percent. He's their expert, he says that's the
21 share they would ask for. I don't see any reason to doubt
22 that. So I'm willing to adopt that 17.6 percent sharing of
23 the benefits that Doctor Bazelon says.

24 Q. So was that the last step or what is the last step in
25 this calculation?

1 A. So that takes me down to a Finesse share of AT&T cost
2 savings of \$138,921 for this one year.

3 Q. And is that where you stop at one year?

4 A. No. So I then took -- I have a model that's in my report
5 that takes this same calculation every year from 2018 all the
6 way through to patent expiration in the sort of longest time
7 period of 2029, September of 2029, or the shorter time period
8 of just until next year, through late 2024.

9 Q. And so what's the overall summary of this cost savings
10 that AT&T would -- would experience from the PIM cancellation
11 and the calculation of the royalty associated with it?

12 A. Right. So I've -- I've tried to summarize kind of the
13 different ways I looked at it. First is I ran the model
14 twice, one saying how many site visits would there be avoided
15 if there's a site visit every time and only when these key
16 performance indicators are impacted by the internal PIM.
17 Those are the lower numbers here.

18 And for the longer time period, it's \$964,000, and for
19 the shorter time period, it's \$378,000 and some change.
20 Obviously if you -- if I assume very conservatively that
21 you've avoided a truck roll, even if there was detectable PIM,
22 the numbers are going to be higher. So there we get 1.7
23 million in the longer time period and 683,000, 684,000, in the
24 shorter time period.

25 The average of those for the longer time period is

1 \$1,352,819, and for the shorter period, \$531,267.

2 Q. Okay. Let's look at some of the other factors that
3 you're required and the jury's required to look at in this
4 reasonable royalty determination. Can you tell us what you
5 looked at?

6 A. So there are three factors in these 15 factors that I
7 generally would say are looking at market data. One of them
8 is what market data do we have from Finesse. Another one
9 looks at, is there any market data from AT&T and Nokia about
10 licensing similar technology. And the third one is, what
11 about just generally in the industry.

12 So these three factors together are really what we call
13 market data or the market approach.

14 Q. And what information did you have in this case in that
15 regard?

16 A. So there are no actual licenses that Mr. Smith or Finesse
17 were able to enter into. But we heard testimony, when Mr.
18 Smith testified, that he approached a company called
19 Intellectual Ventures in 2011 and offered to sell the patents
20 to them. And so I've looked at that data to sort of glean at
21 least what their asking price was.

22 Q. You were here when Doctor Bazelon testified that this
23 potential sale in 2011 was for the portfolio of five patents?

24 A. Yes. The Intellectual Ventures' notes and the testimony
25 around this makes it clear that what he was offering was the

1 entire PIM-C portfolio that I think was five patents.

2 Q. And you may have said and I didn't hear you and I
3 apologize: Did you say what the asking price was by Mr.
4 Smith?

5 A. So if -- if we look through here in -- in this
6 correspondence, he approached them in June of 2011 and asked
7 for their level of interest, and we saw that Intellectual
8 Ventures in their internal notes said, Yeah, we might be
9 interested, but you need to tell us what you're asking. And
10 they actually indicated that a couple of times, you need to
11 tell us what your asking price is.

12 And then on August 23rd, the CEO of Finesse talked to
13 Sherri Richman, the Intellectual Ventures' person, and
14 communicated that the asking price was \$3 million. And then
15 they reiterated that asking price in November of 2011 of 3
16 million.

17 Q. So as an economics and damages expert, why is that
18 important to your and the jury's analysis in damages here?

19 A. Well, I think if we think back to that picture that I
20 have of the negotiating table with the parties sitting there
21 and also that the cards are dealt face up, so I think it's
22 important to know that one of the parties, the seller of the
23 license, at that negotiation had -- we have evidence that they
24 were willing to sell outright these two patents and three
25 others for \$3 million.

1 And if they were willing to sell it for that, it gives me
2 as an economist some indication of what a reasonable royalty
3 would be, which is less than owning the patents; it's just
4 having the right to use them.

5 Q. Were you here when Mr. Smith testified that he went back
6 to Intellectual Ventures in 2016 --

7 A. Yes.

8 Q. -- to sell?

9 A. Yes.

10 Q. And you heard him say that they declined his offer even
11 in 2016?

12 A. Yes. So they didn't reach a deal in 2011, and in 2016
13 they didn't reach a deal.

14 Q. And just to -- you were here when Mr. Smith said that by
15 2011 he -- at least his understanding was that PIM, external
16 and/or internal, was an issue in the industry. Correct?

17 A. Yes. He indicated that, and I think what he more
18 importantly indicated is that his understanding of that, I
19 think he had been aware of it for years, but that industry
20 literature was beginning to recognize PIM as a real problem by
21 2011.

22 Q. Were there additional factors that you looked at and you
23 believe the jury should look at in determining a reasonable
24 royalty here?

25 A. Yes. So there are two more factors, and this is really

1 the last of the factors that had an impact on my opinion and
2 that I think are important. These are the duration and term
3 of the license and the nature and scope of the license. This
4 kind of looks at what sort of license would AT&T get in this
5 negotiation.

6 Q. And how does that, in terms of dollars and cents, how
7 does that come into play into your calculation and analysis?

8 A. So that's important because in considering this market
9 data, this \$3 million offer to sell, their asking price for
10 all five patents, was to have Intellectual Ventures own the
11 patents outright. But the nature of this license is that AT&T
12 would just be getting a non-exclusive license, sort of instead
13 of selling somebody, if you have an apartment building here in
14 Marshall, and the difference between offering to sell the
15 building for \$3 million versus renting one apartment. It's
16 a -- it's a part of the value of owning the patents would be
17 the value of a non-exclusive license.

18 Q. And so how do you put that into dollars and cents for
19 purposes of a royalty calculation?

20 A. So I think economically it's reasonable to look at the
21 whole pie as the value of this technology to sort of the
22 entire market and then look at AT&T's market share as of the
23 July 2018 negotiation, which was about 38.5 percent, that if
24 Finesse had licensed them, they'd essentially be carving off
25 about 38.5 percent of the licensing potential of this

1 portfolio of patents.

2 And so I've done that math. You peel out 38 percent of
3 it, and you get \$1.155 million.

4 Q. Now, having looked at all of this information in its
5 totality, did you reach a conclusion as to what a reasonable
6 royalty would be in this case?

7 A. Yes.

8 Q. And what is that?

9 A. So it's my opinion that if the patents are found to be
10 valid and infringed, that a reasonable royalty would be \$1.35
11 million for a non-exclusive license to AT&T for the '775, and
12 I should say the '775 and/or both the '775 and '134 Patents.

13 Q. Okay. And what about if only the '134 Patent is
14 infringed and found not invalid?

15 A. So if it's only the '134, that's the shorter time period,
16 it would be \$531,000.

17 Q. And just the jury a flavor of this 1.35 million. All the
18 considerations, the fact -- did you take into consideration
19 all those factors that we've discussed?

20 A. Yes. I considered everything. And the primary thing,
21 the real driver, you'll recognize that number is basically
22 that Finesse's share of the cost savings, because I think that
23 gets right to the heart of specifically what value was created
24 by AT&T's use of this Nokia software.

25 I used the market evidence, that sort of \$3 million and

1 the resulting piece that would be attributable to a
2 non-exclusive license as a reasonableness check and sort of
3 told me that the cost savings numbers were also leading me to
4 a reasonable number.

5 Q. Let's discuss for just a minute your response to Doctor
6 Bazelon's damages expert report. Is that okay?

7 A. Yes.

8 Q. First of all, do you agree with Doctor Bazelon's numbers?

9 A. No, not at all.

10 Q. Okay. Help us understand why you have a disagreement?

11 A. So the first is that I think he dismisses this market
12 evidence. He purports to have looked at a negotiation. But I
13 think in a negotiation if the parties know that Doctor Smith
14 was trying to sell these patents and the asking price, not
15 even what other people were willing to pay, their outright
16 asking price was \$3 million, Doctor Bazelon's numbers are
17 just -- just don't make sense in that world. So I think his
18 dismissal of that market evidence is unreasonable.

19 Q. Were you here when Doctor Bazelon also said that he did
20 not take into consideration the fact that the oldest of these
21 patents had been in existence for 15 years and that no one had
22 taken a license?

23 A. Yes.

24 Q. What's the second key issue you have with Doctor
25 Bazelon's opinion?

1 A. Yes. So this is where we're really kind of ships passing
2 in the night. I think the evidence makes it clear that the
3 value of this technology to AT&T, the way they've deployed it
4 in their network, is avoided site hygiene costs. It's not
5 avoided spectrum purchases, and this -- all this sort of talk
6 about you would need more spectrum if you didn't have this
7 technology.

8 Q. This all goes back to Doctor Bazelon and Doctor Wells
9 saying that site hygiene will not cure internal PIM. Correct?

10 A. Yes. I think it's even bigger than that because it
11 certainly depends on that assumption that you can't cure it,
12 but it also depends on the assumption that if you had to turn
13 it off, that the -- this internal PIM out there would be so
14 prevalent that it would chew up so much spectrum, that AT&T
15 would have to go buy more spectrum and there's just no
16 evidence of that.

17 Q. What's the third key issue you have with Doctor Bazelon's
18 damage opinions?

19 A. All right. We talked about this, is that he assumes
20 just, it's right there in his model, that if PIM-C was
21 enabled, that there is a significant enough internal PIM
22 problem that, if you didn't have it on or couldn't use it,
23 that it would be causing a serious problem that would chew up
24 a bunch of spectrum in that radio site.

25 Q. What's the fourth key issue you have with Doctor

1 Bazelon's opinions?

2 A. So the fourth issue is really there is some technical
3 issues with his approach. And I think this came out when he
4 testified and -- and with Mr. Taylor, and that's -- one of the
5 first steps in Doctor Bazelon's modeling, he put up a graph
6 that had a bunch of dots where he sort of interpolated a line.
7 He's trying to determine the relationship between PIM and the
8 impact on upload and download speeds, and his starting point
9 for that was this Los Angeles test that AT&T did.

10 Q. Can I stop you there, Doctor Becker?

11 So up here we wrote when we questioned Doctor Bazelon,
12 whether or not he assumed that internal and external PIM have
13 the same effect on throughput, and you remember he said he
14 made that assumption. Do you remember that?

15 A. Yes.

16 Q. So is that what you're addressing here, at least in part?

17 A. Yes, that's precisely what I'm addressing.

18 Q. So you were in the courtroom when Mr. Taylor showed the
19 difference through those graphics of internal PIM effect
20 versus external PIM effect. Correct?

21 A. Yes.

22 Q. And so what's your understanding as to whether or not
23 this assumption is accurate that they have the same affect on
24 throughput?

25 A. It's my understanding from Mr. Taylor's testimony that

1 they would -- that that's a flawed assumption, and he's making
2 an assumption about -- that he can use that Los Angeles test
3 data, but it's going to dramatically overstate the impact of
4 internal PIM.

5 Q. Do you remember those graphics yesterday that Mr. Taylor
6 presented, that external affected all four receivers in the
7 antenna?

8 A. Yes.

9 Q. And how many receivers did the internal PIM affect?

10 A. One.

11 Q. As part of this, you remember I asked Doctor Bazelon
12 whether he assumed that equipment in that Los Angeles study
13 being the P614 Ericsson equipment cured internal PIM?

14 A. Yes.

15 Q. And that was his assumption. Correct?

16 A. Yes, it was.

17 Q. What's your understanding as to whether or not the P614
18 related to internal or external PIM?

19 A. It's my understanding that the equipment that was used in
20 that test is exclusively looking and addressing external PIM.

21 Q. And is that based on information from Mr. Taylor --

22 A. Yes.

23 Q. -- and Mr. Loddeke?

24 A. Yes.

25 Q. So just so we can summarize, would you summarize what,

1 based on your work that you've done in this case, you believe
2 a reasonable royalty would be for a license starting in July
3 of 2018?

4 A. Yes. As I indicated at the beginning, it's my opinion if
5 the patents are found to be valid and infringed, that a
6 reasonable royalty would be \$1.35 million. If only the '134
7 Patent is valid, it would be the smaller of those two numbers,
8 \$531,000.

9 Q. That's all the questions I have for you, Doctor Becker.

10 MR. DACUS: I pass the witness, Your Honor.

11 THE COURT: All right. Cross examination by the
12 Plaintiff.

13 MS. FAIR: Yes, Your Honor. May I have leave to
14 hand out the binders?

15 THE COURT: You may.

16 All right, Ms. Fair. You may proceed with cross
17 examination.

18 MS. FAIR: Thank you.

19 CROSS EXAMINATION

20 BY MS. FAIR:

21 Q. Good morning, Doctor Becker.

22 A. Good morning.

23 Q. We know each other. Right?

24 A. We do.

25 Q. Now, I notice that you weren't here for Doctor Wells'

1 testimony on Tuesday.

2 A. Correct.

3 Q. And that's, in part, unsurprising, because you have to
4 assume that there's infringement in this case. Right?

5 A. Correct.

6 Q. You have to assume that the patents are valid. Right?

7 A. Correct.

8 Q. And you have to assume that at the hypothetical
9 negotiation, the Defendants wouldn't be holding out. Right?

10 A. Correct.

11 Q. They have to be willing to license.

12 A. Absolutely.

13 Q. You were here for Doctor Bazelon's testimony.

14 A. Yes.

15 Q. And you heard the Defendant's lawyer criticize Doctor
16 Bazelon for not having negotiated an actual patent license.
17 You heard that?

18 A. Yes.

19 Q. Now, to be fair, you don't have extensive experience in
20 actual patent license negotiations. Right? I believe it's
21 three licenses.

22 A. Yes. Yes. I wouldn't call it extensive, but I do have
23 experience in actual negotiations in a -- in a couple of
24 instances.

25 Q. What Doctor Bazelon has spent his entire career in is

1 telecommunications economics. Right?

2 A. Correct.

3 Q. And you told this jury that your career has been in
4 lawsuits. Right?

5 A. It's been -- a substantial part of it has been providing
6 expert opinions in lawsuits. You know, that's been about 23
7 years, but I've been working as an economist and an engineer
8 for almost 45. So it's a substantial part of the more recent
9 20 years of my career.

10 Q. Certainly the more recent five years. Right, Doctor
11 Becker?

12 A. Absolutely.

13 Q. I mean, you're in a courtroom on average every other
14 month testifying in trial.

15 A. Yes.

16 Q. Does that sound about right?

17 A. Yes.

18 Q. And you talked a little bit about specific experience
19 amongst your 150 lawsuits, a few telecommunications cases
20 you've had. Right?

21 A. Yeah. It's more than a few, but it's been -- a subset of
22 the 150 have been telecom related.

23 Q. Now, you get paid, too. Right?

24 A. Yes.

25 Q. You didn't tell the jury that on your direct examination,

1 did you?

2 A. No.

3 Q. How much are you getting paid?

4 A. \$750 an hour.

5 Q. And of the 150 cases, I mean, I just looked at the last
6 four or five years of the ones you've been in, some of it is
7 telecommunications, but it ranges from semiconductors, video
8 games, oil and gas, digital movie transmission, security for
9 transmitting movies to theaters, alarm systems, fiber optics,
10 air mattresses, medical diagnostics. I mean, you're not just
11 in the telecommunications space. Right?

12 A. That's right. That's right. I specialize in patent
13 valuation, and I've been in all those industries that you
14 talked about.

15 Q. You specialize in patent litigation.

16 A. Well, I would -- I would say because I do a good bit of
17 consulting on patent and intellectual property valuation
18 generally, that my specialty is in valuing patents and I apply
19 that specialty very frequently in cases like this.

20 Q. Now, if we get out of the lawsuit world, you would agree
21 that Doctor Bazelon has more experience in the economics of
22 wireless networks. Right?

23 A. I would agree that the economics of telecom -- and I'm
24 only hesitating because I do a lot of work in -- in like WiFi
25 and Bluetooth wireless, and I didn't see anything in Doctor

1 Bazelon's background that was really in the economics of -- of
2 the sort of Bluetooth world or WiFi world. It may be, but I
3 think he's more in the cellular spectrum world.

4 Q. He is. He is exactly in the world that this case is
5 about, isn't he?

6 A. No, I disagree. It's -- he -- it's only the world that
7 he thinks is relevant because he's looking at it from the
8 perspective of an assumption that the economic impact of this
9 software is in, you know, sort of chewing up spectrum versus
10 not chewing it up, as opposed to site hygiene costs that I
11 think are more relevant.

12 Q. And we'll talk about site hygiene and the data that you
13 relied on, but one of the things that you were telling this
14 jury is relevant is this market evidence that you were
15 pointing to. Right, Doctor Becker?

16 A. Yes.

17 Q. And these are some negotiations that Finesse had with
18 Intellectual Ventures around the 2011 time period. Right?

19 A. Yes.

20 Q. Now, you were here for opening. Right?

21 A. Yes.

22 Q. And you heard Mr. Dacus tell the jury that they know
23 better about PIM problems and needs because they're in the
24 cellular industry. Right? Better than Mr. Smith.

25 A. Yes.

1 Q. Do you remember that?

2 Intellectual Ventures is certainly not in the cellular
3 industry, are they?

4 A. As a company, it has -- it's a company that's a
5 consortium of member companies that buy patents, and its
6 member companies include companies in the cellular industry.
7 But Intellectual Ventures itself is not a cellular provider
8 and they're not in that business.

9 Q. And you're not suggesting, are you, that when
10 Intellectual Ventures goes out and decides, negotiates about
11 patents, that they go consult with AT&T, for example, or
12 companies that you're calling member companies of Intellectual
13 Ventures. You're not suggesting that to the jury, are you?

14 A. No, no. They have internal experts in various -- in a
15 bunch of different industries who evaluate their -- the
16 proposals to buy patents.

17 Q. Can you identify any of those internal experts that they
18 use for their proposals?

19 A. No. I don't know them by name.

20 Q. And you don't have any examples for the jury of any that
21 are in this cellular industry, do you?

22 A. No, I can't tell you that.

23 Q. In fact, Intellectual Ventures has business people who
24 are negotiating for the purchase of patents. Right?

25 A. Oh, yes. It's definitely the business people that are

1 out on the negotiating end of things.

2 Q. And in 2011 when Intellectual Ventures was negotiating
3 with Finesse, they didn't have all the information that the
4 jury's seen over the past few days, did they?

5 A. That's correct.

6 Q. They didn't have the materials that Doctor Wells
7 considered, the materials that Doctor Bazelon considered, the
8 materials you considered, did they?

9 A. That's correct.

10 Q. Finesse didn't have it. Right?

11 A. They didn't have the internal materials. I think we've
12 seen a bunch of information this week that was out in the
13 public domain, but I think it's fair that all of the internal
14 stuff that's been produced in this case, Finesse didn't have.

15 Q. Most of what the jury has seen this week didn't even
16 exist in 2011. Isn't that right?

17 A. That's fair.

18 Q. Now, we sat through several hours of testimony from
19 Doctor Wells and Doctor Bazelon. Right?

20 A. Yes.

21 Q. Almost a full day.

22 A. Yes.

23 Q. How much work do you think they did to get to that point?

24 A. I'm sure it was significant. I forget how many hours
25 Doctor Bazelon said he and his team worked, but it was a lot.

1 Q. Now, you're not aware of either Finesse or Intellectual
2 Ventures doing that before or during those negotiations in
3 2011, are you?

4 A. No.

5 MS. FAIR: Mr. Boles, can we please have DX 90?

6 Q. (BY MS. FAIR) These are the deal notes that you relied
7 on from Intellectual Ventures. Right?

8 A. Yes.

9 Q. Who is Sheri Richman?

10 A. Sherri Richman is an acquisitions specialist at
11 Intellectual Ventures, one of the people that fields these
12 proposals or inquiries that come into them.

13 Q. Do you know her?

14 A. No.

15 Q. Do you know her background?

16 A. No.

17 Q. Would it surprise you to learn that she has an MBA, she
18 doesn't have any technical background at all?

19 A. That wouldn't surprise me, no.

20 Q. Do you know what she was relying on in her negotiations
21 with Finesse?

22 A. Well, I do know that the primary thing she was relying on
23 that I find to be relevant from the negotiation is she was
24 relying on Mr. Chapman's asking price.

25 MS. FAIR: Mr. Boles, can we go to page 5?

1 Q. (BY MS. FAIR) We see a section here that she wrote up,
2 licensing review notes. Do you see that?

3 A. Yes.

4 Q. And there are seven questions.

5 A. Yes.

6 Q. She didn't even answer all of these seven questions, did
7 she?

8 A. They didn't get to the point where they had -- in the
9 negotiations where they answered all of those questions,
10 that's correct.

11 Q. You're suggesting that she didn't answer them because the
12 negotiations didn't get that far? I mean, do you know that?
13 Did you talk to her?

14 A. No, no. I don't know how far they got. I just -- what's
15 relevant to me is what was Finesse's asking price.

16 Q. You're not suggesting that either party to these
17 negotiations had some detailed market analysis of the cellular
18 industry as it exists today or what AT&T's or other wireless
19 carriers needs and use of the invention might be in the
20 future, are you?

21 A. No.

22 Q. And you're not even aware of a product that was on the
23 market at the time of these negotiations that did PIM-C.

24 Right?

25 A. Correct.

1 Q. You don't think any exist.

2 A. No. At that time? No. Nobody had commercialized a
3 PIM-C product at that time.

4 Q. And the products in this case weren't even out until
5 2018, seven years later. Right?

6 A. That's correct.

7 Q. Now, by the way --

8 MS. FAIR: Mr. Boles, can we have slide 27?

9 Q. (BY MS. FAIR) This is the slide you showed the jury
10 about the Intellectual Ventures' negotiation?

11 A. Yes.

12 Q. And if we go to the slide before it, this is how you
13 introduced what you call the market evidence. Right?

14 A. Yes.

15 Q. Now, this first factor listed here, you put licenses to
16 the patents-in-suit. Right?

17 A. Yes.

18 Q. That's not actually what the factor is from
19 *Georgia-Pacific*, is it?

20 A. That's a paraphrasing of the way that it's become used in
21 the industry. I think in the actual case, there's a long
22 sentence that talks about tending to establish evidence and
23 establish royalty or something to that effect.

24 Q. It's not just tending to prove an established royalty, is
25 it, Doctor Becker?

1 A. No. The case opinion has a lot of discussion of each of
2 these factors.

3 Q. Well, and you wouldn't say that negotiations for one
4 potential sale of a portfolio would tend to establish
5 anything, would you?

6 A. No, no. I'm not suggesting that it's establishing a
7 royalty. It's just providing relevant economic evidence to a
8 negotiation.

9 Q. Well, the factor actually is the royalties received for
10 the licensing of the patent-in-suit, isn't it?

11 A. Yes.

12 Q. And there are no royalties received in negotiations, are
13 there?

14 A. No.

15 Q. And there are no royalties received when you sell
16 something, are there?

17 A. No. You get -- you get a purchase price when you sell
18 something.

19 Q. And so if you were to go out and buy a piece of land, the
20 purchase price, you might pay, let's say, a hundred thousand
21 dollars for it. Are you with me?

22 A. Yes.

23 Q. And Exxon comes and drills on the land, gets some oil
24 out.

25 A. Correct.

1 Q. Right? Seven years after you buy it, let's say.

2 A. Okay.

3 Q. You're not going to be limited in the royalties they owe
4 you to a hundred thousand dollars, are you?

5 A. Oh, no. No. I'm not suggesting that it provides some
6 limit. It's just relevant economic evidence to inform a
7 negotiation.

8 MS. FAIR: Mr. Boles, can we please have slide 16?

9 Q. (BY MS. FAIR) One of the things -- well, this slide of
10 yours, Doctor Becker, is citing DX 93. We see that at the
11 bottom left?

12 A. Yes.

13 Q. And you were explaining to the jury that this document is
14 part of why you used site hygiene savings costs for your
15 model. Right?

16 A. Yes.

17 Q. And you also explained to the jury, we're hearing more
18 again about this big difference between internal PIM and
19 external PIM.

20 A. Yes.

21 Q. Right?

22 Now, we saw this document yesterday when Mr. Ward was
23 questioning Mr. Loddeke. Do you remember that?

24 A. Yes.

25 Q. And Mr. Ward asked him about this document. Do you

1 remember that?

2 A. Yes.

3 Q. They were talking about developing teams, tiger teams, to
4 tackle PIM.

5 A. Yes.

6 Q. Right?

7 Do you remember what Mr. Loddeke's response was?

8 A. I'm not sure what part of the tiger teams. I know there
9 were several questions about tiger teams. If you can be more
10 specific.

11 Q. Yeah. So knowing that this was one of the main documents
12 that you relied on to use a site hygiene cost savings model,
13 did it surprise you when you heard Mr. Loddeke say, oh, well,
14 this is about external PIM specifically?

15 A. Well, I'd need to see his testimony. I think the
16 question -- my understanding is that the tiger teams are
17 -- were formed to address external PIM, and certainly any
18 testimony about the tiger teams I think would be specific to
19 external PIM.

20 Q. Does it sound to you like every time there's a document
21 the Defendants don't like, they just say, oh, that's external
22 PIM?

23 A. No. It sounds to me like most of the problems in the
24 network are external PIM and that's why most of the documents
25 talk about external PIM.

1 Q. Including this one, as Mr. Loddeke told us yesterday.

2 A. Oh, sure. This -- we saw that the document itself is
3 about PIM mitigation strategies generally, both internal and
4 external.

5 Q. One of the parts of your model is that you assume that
6 reduced maintenance is one of the benefits provided by the
7 invention. Right?

8 A. Yes.

9 Q. And you told the jury that Nokia would have been at the
10 negotiating table at the hypothetical negotiation?

11 A. Yes.

12 Q. Do you remember seeing PX 995 with Mr. Davis yesterday?

13 A. Tri-band -- yes.

14 Q. And on page 2 of this document, this is Nokia --

15 MS. FAIR: I'm sorry, Mr. Boles. Can we go back to
16 the title slide?

17 Q. (BY MS. FAIR) This is Nokia's commercial proposal for
18 one of the radios at issue in this case. Right?

19 A. Yes.

20 Q. And on page 2 of this document, Nokia talks about some of
21 the benefits of this radio. Right?

22 A. Yes.

23 Q. And they're not talking about that PIM cancellation can
24 reduce your maintenance, are they?

25 A. From Nokia's perspective, they're -- you know, Nokia

1 doesn't have maintenance costs, so they're not talking about
2 the benefits of reduced site visits here. I don't see
3 anything mentioning that.

4 Q. You don't think Nokia in selling a product, a commercial
5 proposal to its customer, one of its biggest customers, would
6 include benefits to the customer?

7 A. Well, I mean, they are mentioning that they talk about
8 the fact that this product has built-in PIM cancellation, but
9 they're not -- again, the site hygiene is -- is not something
10 that I see them -- that Nokia calling out as a benefit.

11 Q. We haven't seen any Nokia documents calling that out as a
12 benefit, have we?

13 A. No. I wouldn't expect to.

14 Q. By the way, you criticized Doctor Bazelon for assuming
15 the Defendants would have gone out and bought more spectrum if
16 they didn't have this technology. Right?

17 A. Yes.

18 Q. That's not actually what he said, is it?

19 A. It's not -- I'm sorry. It's not what I said or what he
20 said?

21 Q. That's not what Doctor Bazelon said, is it?

22 A. Well, it's -- I know he's described his approach in a
23 number of different ways, but it is what his model assumes.
24 And I can tell you economically his model specifically assumes
25 that, without the PIM-C, AT&T would require additional

1 spectrum and he has gone out and priced that spectrum.

2 Q. He testified -- I mean, he did his model. Right? He's
3 the one who did the model.

4 A. Yes.

5 Q. He knows what his assumptions are. Right?

6 A. Yes, I think that's fair.

7 Q. He knows why he did his model the way that he did it.
8 Right?

9 A. Yes.

10 Q. And he testified the exact opposite. When Mr. Dacus
11 asked him about this very issue that they would have gone out,
12 run out and bought more spectrum, he said, no, that's not my
13 assumption.

14 A. I heard him say that.

15 Q. And he had explained that it's like having debris on a
16 lane of highway. Right?

17 A. Yes.

18 Q. And you've got that lane of highway, and if we can clear
19 the debris and value what that lane's worth now that you can
20 use it, that's what a spectrum salvage model will do for you.

21 That's what Doctor Bazelon testified to. Right?

22 A. Yes, I -- I think his -- his explanation of it, you got
23 to go a little further as to what he assumed the consequence
24 of not clearing the debris would be, but I agree that he
25 talked about the -- the debris on the highway.

1 Q. Now I want to talk to you about I think one of the other
2 big disconnects between you and Doctor Bazelon, and that's
3 this, I think you called it, national test data?

4 A. Well, it's the -- the big disconnect is the difference of
5 opinion about how prevalent PIM is. I -- one piece of
6 evidence that I'm relying on for that is the national test.

7 MS. FAIR: Mr. Boles, can we have Doctor Becker's
8 slide 19?

9 Q. (BY MS. FAIR) The two percentages that you have
10 highlighted here are directly from what you're calling the
11 national test data. Right?

12 A. Correct.

13 Q. The 1.98 percent and the 1.19 percent. Right?

14 A. Yes.

15 Q. As well as this 29.8 percent here. Right? We're going
16 to see that in your analysis. Right?

17 A. Yeah, you do -- I use that factor.

18 Q. All of these percentages come from the same source, what
19 you're calling the national test data.

20 A. Correct.

21 Q. You're not suggesting to the jury that AT&T went out and
22 did a test on the radios for this national test data. Right?

23 A. Well, I'm not sure what you mean by went out. There's
24 data -- the AT&T systems can collect data from the radios, and
25 the test was Mr. Taylor taking the data that is collected or

1 was collected from these radios and running an analysis of,
2 you know, whatever he needs to do as the technology person who
3 understands how to test for PIM is --

4 THE COURT: Let me suggest this, Doctor Becker. If
5 you don't understand the question, don't speculate about what
6 it might mean. Just ask counsel to explain it or ask it
7 again.

8 THE WITNESS: Okay. I'm sorry, sir.

9 Q. (BY MS. FAIR) He didn't go out and turn off radios and
10 then turn them back on all across the country to see what was
11 happening here.

12 A. That's true.

13 Q. It's a snapshot of one day of data. Right?

14 A. Correct.

15 Q. And the reason that we have this data is because you
16 asked AT&T for measurements to show whether there was internal
17 PIM and whether or not this PIM cancellation technology was
18 having an effect. Right?

19 A. Correct.

20 Q. So AT&T's hired damages expert comes to them and says,
21 hey, I'm putting together the number I'm going to present to
22 the jury, I need some data on whether PIM is a problem and
23 whether PIM cancellation works. Right?

24 A. Right.

25 Q. And you made that request after this lawsuit was filed.

1 Right?

2 A. Yes.

3 Q. After they'd already learned that they were facing a
4 substantial damages claim. Right?

5 A. Correct.

6 Q. And in a year and a half of this lawsuit they have all
7 this data day after day, in response to this request you were
8 provided one day. Right?

9 A. Yes.

10 Q. One day of data.

11 A. That's correct.

12 Q. AT&T picked the date that this data would come from.
13 Right?

14 A. Oh, I'm sure they did. I didn't give the date to them.

15 Q. And you got this from Mr. Taylor, we heard. Right?

16 A. Yes.

17 Q. And you were here when he testified yesterday?

18 A. Yes.

19 Q. And he told us that this type of data, it's available day
20 after day. Right?

21 A. Yes.

22 Q. He didn't give it to you, did he?

23 A. Any other day? No.

24 Q. He didn't even know that someone had done this, had
25 pulled this data. Right? You heard him say that yesterday?

1 A. The -- yes, that -- he obviously knew that the analysis
2 was done because he did it, but he didn't know that the data
3 had been pulled until I asked that he go do that analysis.

4 Q. He didn't even know it existed is what he told the jury.

5 A. I think I heard him say he didn't know that the report
6 had been run; he knew that the capability to monitor these
7 conditions in the radios existed.

8 Q. He didn't know who pulled it?

9 A. Correct.

10 Q. He didn't know how to even figure out who pulled the
11 data.

12 A. Correct.

13 Q. He didn't know who generated the information. Right?

14 A. Correct.

15 MS. FAIR: Mr. Boles, can we have Demonstrative PX
16 1384, please.

17 Q. (BY MS. FAIR) You were here. You saw this email
18 yesterday. Right? This is the one where --

19 A. Yes. Yes.

20 Q. This is what Mr. Taylor said before the lawsuit started.
21 Right?

22 A. Yes.

23 Q. This is July of 2019.

24 A. Yes.

25 Q. He said, It's almost impossible to draw definitive

1 conclusions from a one-off test as PIM changes so much from
2 minute to minute, hour to hour, day to day, month to month, et
3 cetera. Right?

4 A. He said that in this email in the context of what they
5 were talking about, yes.

6 Q. Well, you didn't have this document. Right?

7 A. That's correct, I didn't.

8 Q. When you did your analysis?

9 A. Correct.

10 Q. I didn't see it on your list of materials considered.

11 A. That's correct.

12 Q. AT&T didn't give you this email, did they?

13 A. I don't think it was in the set of things -- I know it
14 wasn't in anything I saw. It might have been in the materials
15 that I was provided.

16 Q. Now, we heard yesterday the Defendants say, oh, no, no,
17 no, this is external PIM, this is external PIM. We heard
18 that. Right?

19 A. Yes.

20 MS. FAIR: Mr. Boles, can we go to page 5 of this
21 document? And if we look at the -- see that box kind of right
22 there in the middle? Yes. Thank you.

23 Q. (BY MS. FAIR) We see markets have ongoing carrier adds.
24 And you understand in this context carrier is talking about
25 what frequencies are carrying the data?

1 A. Yes. I think when they talk about carrier adds, it's --
2 they are either talking about, you know, adding new
3 frequencies or just adding new radios that relate to different
4 frequencies.

5 Q. And they're talking about the PIM pressure test app?

6 A. Yes.

7 Q. And then in the box, they talk about they're going to
8 conduct PIM testing and they explain how, by measuring KPIs --
9 and, by the way, KPIs are the performance measurements that
10 Doctor Bazelon talked about. Right?

11 A. Correct.

12 Q. And at the end of that same line where they talk about
13 measuring KPIs, they talk about B17 and B14. You recognize
14 that. Right?

15 A. Yes.

16 Q. That's bands 14 and 17?

17 A. Yes.

18 Q. And those are the bands -- the same bands that are on the
19 radios that are at issue in this case. Right?

20 A. Yes.

21 MS. FAIR: Mr. Boles, can we please have PX 274?

22 I'm sorry. I said PX. I believe it's DX 274.

23 Q. (BY MS. FAIR) This is that snapshot of data. Right?

24 A. Yes.

25 MS. FAIR: Mr. Boles, do you happen to have the

1 native in Excel?

2 Q. (BY MS. FAIR) So this is the first tab of the snapshot
3 that AT&T gave you when you were coming up with your damages
4 numbers. Right?

5 A. Yes.

6 Q. And if we go to the second tab, RRH with PIM-C on, this
7 is the list row by row of radio heads where they have PIM-C
8 turned on. Right?

9 A. Yes.

10 MS. FAIR: And if we go all the way to the right,
11 Mr. Boles.

12 Q. (BY MS. FAIR) There's three columns that are kind of
13 separated from the first traunch of data. Right? Doctor
14 Becker?

15 A. Oh. Oh, yes.

16 Q. These over here?

17 A. Yeah, I saw that.

18 Q. And those are the columns that you used for your
19 analysis. Right?

20 A. I used two of those three.

21 Q. Fair enough. Two of those three, the first two, AP and
22 AQ?

23 A. Correct.

24 Q. Okay. So if we click in -- and you're familiar with
25 Excel. Right?

1 A. Yes.

2 Q. You use Excel a lot.

3 A. Yes.

4 Q. It can help in pulling together a lot of data and
5 calculating more complicated things than might be simple math?

6 A. Yes.

7 Q. So if we click on -- and if you click on a cell in an
8 Excel document, you can see what the formula was that was used
9 to get to that number. Right?

10 A. Sometimes if it's -- if there's a formula in there.

11 Q. If there is. Right?

12 MS. FAIR: So if we go to AP 2, Mr. Boles. Can you
13 click on that cell?

14 Q. (BY MS. FAIR) Okay. Doctor Becker, if there were a
15 formula that told us about that, it would be right here.
16 Right?

17 A. Yes.

18 Q. So what's happened is somebody has put a 0 or a 1 in each
19 of those cells. Right?

20 A. Yes. From my understanding from talking to Mr. Taylor,
21 that he did. This is his work.

22 Q. Yeah. He made that determination. Right?

23 A. Yes.

24 Q. AT&T's employee who's providing the damages expert in a
25 lawsuit made that determination. Right?

1 A. Yes.

2 Q. And you can't tell us what he did, can you?

3 A. Oh, right. I certainly can't. That's way beyond my
4 technical skills.

5 Q. And, by the way, just -- what do you understand the
6 difference between the 0 and the 1 to mean in these columns
7 that you used in your analysis?

8 A. So the 0s and 1s in column AP, if it's a 1, it's that the
9 KPIs -- that the internal PIM was -- or whatever was going on
10 in the radio was causing the KPIs to be exceeded, like, in a
11 bad direction.

12 Q. So it's a yes or no. The 0 or 1 means yes or no.

13 A. Yes or no, is there something, a problem that is causing
14 an impact on the KPIs. And if it's a 1, the answer to that
15 question is yes.

16 Q. And so you can't tell us what was done to figure out
17 whether the cell should say 0 or 1.

18 A. Correct.

19 Q. And Mr. Taylor didn't tell us that, did he?

20 A. I did not hear him asked any questions about this
21 specific formula.

22 Q. Well, he testified that the algorithms, the math that he
23 used to determine what should go in each of these blanks and
24 these columns over here, was proprietary. Do you remember
25 hearing that?

1 A. I did hear that, yes.

2 Q. It's a secret. Right?

3 A. I think that's another way to talk about what proprietary
4 means.

5 Q. So for all of this snapshot of data, we have to rely on
6 AT&T for all of the decision-making. Right?

7 A. Yes.

8 Q. What day it came from?

9 A. Correct.

10 Q. What radios they listed here?

11 A. Correct.

12 Q. How they got to decide whether to put a 0 or 1 in the
13 columns that you used in your analysis. Right?

14 A. That's correct.

15 Q. And we don't even know who pulled the data, do we?

16 A. The original data, yeah, we don't.

17 Q. Did you know before yesterday that this snapshot, this
18 one-off test, doesn't even test all of the accused radio
19 models?

20 A. Yes. Yeah. I could see that from the -- from the radio
21 counts in the -- I know that there's more radios that are
22 accused than are in this test.

23 Q. A lot more, aren't there?

24 A. I -- I haven't tried to calculate the difference. I know
25 this is a subset of the radios that were tested or that the

1 test is a subset of the radios out on the network.

2 MS. FAIR: Mr. Boles, can we go back to the data
3 summary, please?

4 Q. (BY MS. FAIR) Mr. Taylor told us yesterday that that
5 second row there, number of radio channels where it says
6 67,159 with PIM-C on, and 3,026 with PIM-C off, that's not the
7 number of radios. Right?

8 A. I think I heard him say that's channels, that you can
9 have multiple channels per radio.

10 Q. And these -- this one-off test was only testing dual band
11 radios. You know that?

12 A. I think I recall seeing that in -- when we were digging
13 through the data, but I -- if you have evidence of that,
14 I'll -- I'll accept your representation.

15 Q. I think Mr. Taylor told us we could essentially cut the
16 number in half to know how many radios were being tested, not
17 exactly but roughly cut it in half.

18 A. I heard him say that, yes.

19 Q. So if we were to cut 70,000 in half, we're talking
20 about -- about 35,000 radios. Right?

21 A. That would be the number, yes.

22 MS. FAIR: And, Mr. Boles, can we go to RRH with
23 PIM-C on again and scroll all the way to the left?

24 Q. (BY MS. FAIR) And, by the way, 35,000 is less than half
25 of the accused radios in this case. Right?

1 A. It -- yes, of the ones that have the capability, it's
2 about half of the ones of the count of total that would have
3 it on.

4 Q. Right.

5 MS. FAIR: Mr. Boles, can you highlight column F?

6 Q. (BY MS. FAIR) You recognize that, Doctor Becker, the
7 band?

8 A. Yes.

9 Q. And so all we see there --

10 MS. FAIR: Well, Mr. Boles, can you click the down
11 arrow?

12 Q. (BY MS. FAIR) That's a filter in Excel. Right, Doctor
13 Becker?

14 A. It is. It is.

15 Q. I'm sorry for talking over you. So if we click the down
16 arrow, what we see in this box here are all of the -- any
17 option of text that could be in that column. Right?

18 A. Right.

19 Q. And so what we know from this is that the only bands that
20 were tested as part of this -- or tested as part of this
21 snapshot are bands 14 and band 17. Right?

22 A. Correct.

23 Q. Now, band 17 is a subset of which band?

24 A. I -- I don't know.

25 Q. Band 12?

1 A. I -- I don't have the band allocation numbers committed
2 to memory.

3 Q. So you don't know which bands this partial snapshot of
4 data looked at compared to which bands are at issue in this
5 case?

6 A. I -- I did not dig into the -- the -- at the level of
7 bands and sectors and what he was testing. I looked at the
8 overall results and talked to him about what that indicated to
9 him.

10 Q. You have heard testimony yesterday about how AT&T was
11 having particular problems with band 29, they had this
12 spectrum, they needed to figure out a way to deploy it.

13 Right?

14 A. I've heard testimony about that, yes.

15 Q. There's no band 29 listed here, is there?

16 A. No.

17 Q. And there's no band 25. That's one of the others that
18 the accused radios operate on. Right?

19 A. It is, yes.

20 Q. There's no band 66. We don't see that there?

21 A. That's correct.

22 Q. So when you did your calculations, you were looking at a
23 one-day snapshot from who knows who pulled it using secret
24 math on something like less than half of the accused radios in
25 this case.

1 A. That's correct.

2 Q. You can't tell us what the data was the day before, can
3 you?

4 A. No.

5 Q. You can't tell us what the data looked like the day
6 after. Right?

7 A. No.

8 Q. We don't know what the data looked like even on the same
9 day for the rest of the infringing radios, do we?

10 A. Correct.

11 Q. If it's a different two percent of radios every day and
12 we roll that out for a month, that's 60 percent of the radios,
13 isn't it?

14 A. Well, I mean, your premise of a different two percent
15 every day, I mean, if you want me to accept that, sure, but
16 that can't happen because of the nature of internal PIM. It
17 wouldn't be a different set of radios every day that have a
18 kink in the connector. One day, it's there; one day, it's
19 not; the next day, it's there again--that's not the nature of
20 internal PIM.

21 Q. Well, we just can't know that because we don't have any
22 of that data, do we?

23 A. We don't have the data on this. We know -- there is
24 plenty of other data and Mr. Taylor's testimony about the
25 consistency of internal PIM. But this data, I agree it's one

1 day.

2 Q. Of less than half the radios.

3 A. Yes.

4 MS. FAIR: Mr. Boles, you can take that down. Thank
5 you.

6 Q. (BY MS. FAIR) Now, you're familiar with the damages
7 statute. Right, Doctor Becker?

8 A. Yes.

9 Q. I didn't see in your slide presentation the language from
10 the damages statute in it.

11 A. I -- I didn't put that in. I think throughout my
12 presentation, I'm talking about the use made of the invention
13 and the benefits that AT&T gets from that. But I didn't have
14 that damages statute in -- on a slide.

15 MS. FAIR: Mr. Boles, can you pull up Doctor
16 Bazelon's slide 6?

17 Q. (BY MS. FAIR) Now, you just told the jury part of this
18 language, but you added to it, didn't you? You told them
19 about you were testifying about the use made of the invention
20 by the infringer and the benefits of it and went on to explain
21 more. Right?

22 A. Yes. The -- okay.

23 Q. Right?

24 A. Yes.

25 Q. Now, your opinion is that AT&T owes \$1.35 million in a

1 fully paid-up lump sum --

2 A. Correct.

3 Q. -- for the life of the patent --

4 A. Correct.

5 Q. -- for all of the infringement. Right?

6 A. Correct.

7 Q. And if it's just the '134 that's infringed, it's only
8 \$531,000. That's your testimony?

9 A. Yes.

10 Q. You say that's a fair measure of AT&T's use of the
11 invention. Right?

12 A. Yes.

13 Q. I think your words on direct examination were, they're
14 not there sitting at the table saying they don't use it.
15 Right?

16 A. Correct.

17 Q. So they're admitting use.

18 A. Well, they're admitting use of the Nokia radios. I have
19 to assume that -- that -- that it's an admission of
20 infringement, but that's really for the jury to determine.

21 Q. Right. And they have to also admit the patents are
22 valid. Right?

23 A. Yes.

24 Q. And they have to be willing to actually license the
25 technology from Finesse. Right?

1 A. Yes.

2 Q. And your opinion is that, in this hypothetical world,
3 that Finesse would have agreed with AT&T for a million
4 dollars, \$1.35 million.

5 A. Yes.

6 Q. That's a huge disconnect from Doctor Bazelon, isn't it?

7 A. I agree. It is.

8 Q. Now, you understand what use of the invention means.
9 Right? We're talking about infringement.

10 A. Yes.

11 Q. And you understand the difference, having testified in
12 patent infringement cases, trials every other month, the
13 difference between a method claim and an apparatus claim.

14 Right?

15 A. Yes.

16 Q. You know that it's important to determining how much
17 infringement there is what type of claim we're talking about.
18 Right?

19 A. It can be important in some cases to distinguish between
20 apparatus claims and method claims.

21 Q. It can be very important for damages. Right?

22 A. It can be.

23 Q. You know that there are apparatus claims asserted in this
24 case?

25 A. Yes.

1 Q. And you know for an apparatus claim, we're talking about
2 not actually performing a method, but using an apparatus,
3 using a thing, using a product. Right?

4 A. Yes.

5 Q. And all that's required for infringement of an apparatus
6 claim is that the product have the functionality. Right?

7 A. Correct.

8 Q. And you understand Doctor Bazelon did his calculations
9 based on the number of units that were turned on. Right?

10 A. Yes.

11 Q. You don't quibble with how many radios were turned on.
12 Right?

13 A. No.

14 Q. You're just saying there wasn't really a problem and
15 those radios don't really do that much. Right?

16 A. I wouldn't say there's not a problem. I've looked at
17 what the extent of the potential internal PIM that would be
18 canceled and how much of it the evidence indicates it does
19 cancel, but, I mean, we don't quibble over the number of
20 radios that were on.

21 Q. And your reduction for how much of a problem there is and
22 how often you're saying that PIM-C works is from that snapshot
23 that AT&T fed you from one day of half the radios. Right?

24 A. The specific factor is the overall assessment of the
25 prevalences from a much larger set of data.

1 Q. The jury hasn't seen this much larger set of data, have
2 they?

3 A. Well, when I say data, I meant data and evidence.
4 They've heard Mr. Taylor's testimony. We've seen Mr.
5 Loddeke's sheet that tells us when you have the million
6 radios, you're getting about 3,000 site visits a year. That
7 tells us the extent of internal PIM is a problem. That's what
8 I meant by data. Data and evidence.

9 Q. Let's talk about what you did with that one-day snapshot.
10 I mean, that's where the real numbers come from. Right?

11 A. Several of the factors come specifically from the one
12 day.

13 MS. FAIR: Mr. Boles, can we have slide 24, please?

14 Q. (BY MS. FAIR) This is a slide you showed the jury during
15 your testimony? Right?

16 A. It is.

17 Q. And the first step you do is you cut out 98.8, give or
18 take, radios that are infringing. Right?

19 A. Well, I'm not cutting out the radios. I'm trying to get
20 to an estimate of how many trips out to the tower there would
21 be. So it's -- it's not eliminating the radio; it's taking a
22 radio and saying how many of them have internal PIM problems.

23 Q. You go from 84,000 radios to 1,008, you cut out 98.8
24 percent of them. Right?

25 A. In terms of the ones that would have an internal problem,

1 yes.

2 Q. And then you cut out another 70 percent --

3 A. Yes.

4 Q. -- of the thousand that remain.

5 A. Yes.

6 Q. And those two numbers come directly from the columns that
7 we saw in the snapshot one-off set of data where there were
8 all those 0s and 1s. Right?

9 A. Yes.

10 Q. With the mystery math, who knows who pulled it, the day
11 that AT&T picked. Right?

12 A. Correct.

13 Q. And you get to 301 radios.

14 A. Yes.

15 Q. And you use that 301 radios out of 84,000 and multiply it
16 times \$2,619 to get to just under \$800,000 in avoided costs.
17 Right?

18 A. True.

19 Q. Have you done the math to see what that would be if you
20 used all 84,000 radios?

21 A. No.

22 MS. FAIR: Mr. Boles, can we have a calculator,
23 please?

24 I'm sorry, Ms. Brunson. Can Mr. Boles have it?

25 Q. (BY MS. FAIR) Okay. So to do that, we would do 84,733

1 times 2,619. Right?

2 A. Yes.

3 Q. And instead of just under \$800,000, what do we get?

4 A. \$222 million.

5 Q. And if we reduce that by the 17.6 percent of cost savings
6 to Finesse --

7 MS. FAIR: Mr. Boles, it would be times .176.

8 Q. (BY MS. FAIR) Right, Doctor Becker?

9 A. It is.

10 Q. And what do we get?

11 A. \$39 million.

12 Q. So it would be \$39 million would be Finesse's share of
13 the cost savings if you had used all the radios. Right?

14 A. Right.

15 Q. That's just for one year.

16 A. Correct.

17 Q. Did you -- the next step in your analysis that you did to
18 get to the \$1.35 million, it's more complicated math than just
19 multiplying out. Right?

20 A. Yeah. You -- because of the time value of money, you
21 can't just take the number and multiply it by the number of
22 years. But it's -- it is more than just the 39 million.

23 Q. Did you do the math to see what the damages would be if
24 you used Doctor Bazelon's 64,702 radios that were turned on?

25 A. And an assumption that literally you have PIM exceeding

1 KPIs in a hundred percent of them and a hundred percent of
2 them would be fixed? No.

3 Q. Would it surprise you to learn it's \$193 million through
4 2029?

5 A. No.

6 Q. And \$58 million through 2024?

7 A. It wouldn't surprise me, no.

8 MS. FAIR: Mr. Boles, you can take that down.

9 Q. (BY MS. FAIR) Doctor Becker, you're familiar with
10 monitored home alarm systems, are you?

11 A. Yes.

12 Q. You've had one before?

13 A. Yes.

14 Q. And you pay a monthly subscription to whoever your
15 provider is. Right?

16 A. Yes.

17 Q. And you do that so that when someone breaks into your
18 house, either the company is alerted or maybe it calls the
19 police automatically for you, it does something automatically
20 for you when there's a break-in.

21 A. Correct.

22 Q. When you get to the end of the month and you haven't had
23 a break-in, you don't call the alarm company and say, well, we
24 didn't have the problem this month that this was designed to
25 fix, so I don't think we should have to pay for it this month.

1 A. No, you don't get to do that.

2 Q. You don't get to the end of the year and say, well, we
3 only had two percent of break-ins and your alarm only worked a
4 little bit of the time, so we think you should cut our bill by
5 99.4 percent.

6 A. No, you don't get to do that.

7 Q. Here you took the snapshot fed to you by AT&T that's half
8 the radios to cut out all but 300 from the analysis that you
9 did. Right?

10 A. The sample for the test was half. I don't want to leave
11 the impression that I took it down to half the radios. The
12 factor came from the test that was about half the radios.

13 Q. That's right. AT&T took it down to half the radios,
14 didn't they?

15 A. Well, the -- the test sample was -- was on less than all
16 of the radios. That's true.

17 Q. And AT&T picked which radios.

18 A. Yes.

19 Q. AT&T decided what day.

20 A. Yes.

21 Q. AT&T decided how to do the math to feed their damages
22 expert in a case where you're going to tell the jury how much
23 they should have to pay. Right?

24 A. That's true.

25 Q. So you cut it down to 300 radios.

1 A. Correct.

2 Q. You're not suggesting to this jury that AT&T can turn it
3 on for free, infringe for free, until there's a problem.

4 A. No, not a bit. I'm suggesting that a license, just much
5 like a home monitoring license, you pay a fee to have the
6 ability to have it on, and that the license to have this in
7 their network is -- would be \$1.35 million to be able to have
8 the ability to have this on.

9 Q. For the entire life of the patent, to turn it on in
10 64,000 radios a year, you think they would have agreed to a
11 million dollars.

12 A. A little more than a million, yes.

13 MS. FAIR: I'll pass the witness.

14 THE COURT: Redirect, Mr. Dacus?

15 MR. DACUS: Yes, Your Honor.

16 THE COURT: All right. Proceed with redirect.

17 MR. DACUS: Thank you, Your Honor.

18 REDIRECT EXAMINATION

19 By Mr. Dacus:

20 Q. So what you and the jury are attempting to do in
21 determining a royalty is to determine how much use, what
22 value, what benefit, AT&T gets from this feature. Correct?

23 A. Correct.

24 Q. Okay. And if I understood, with respect to the amount of
25 PIM that's actually canceled, that's part of what you wanted

1 to determine in the work that you did here. Is that fair?

2 A. Yes. That's an important thing to know as to whether
3 this Nokia software magically gets rid of everything that's
4 out there when it's present or not.

5 Q. You cannot cancel PIM unless PIM is present.

6 A. That's a fundamental reality.

7 Q. And we know that Doctor Bazelon assumed what with respect
8 to how much PIM was present?

9 A. He assumed that there is not just detectable PIM, but
10 I'll call it problematic -- significant problematic PIM
11 present at every single radio in the network where this
12 capability was on from the day the radio was installed.

13 Q. Okay. And so did you go ask AT&T -- when you got this
14 report and you saw that he made that assumption, did you ask
15 AT&T, hey, is that accurate or not?

16 A. Yes.

17 Q. And was that the purpose of trying to determine how much
18 internal PIM actually existed?

19 A. Yes.

20 Q. Okay. So I want to walk through what evidence you have
21 and the jury has available to you on that point. Is that
22 okay?

23 A. Yes.

24 Q. We know you have the one-day study. Correct?

25 A. Yes.

1 Q. You also have Mr. Taylor and Mr. Loddeke's testimony.

2 Correct?

3 A. Yes.

4 Q. And you have your discussions with them. Correct?

5 MS. FAIR: Objection, leading, Your Honor.

6 THE COURT: Sustained.

7 MR. DACUS: I'll rephrase, Your Honor. Thank you.

8 Q. (BY MR. DACUS) Did you talk with Mr. Loddeke and Mr.
9 Taylor in the course of your work in this case?

10 A. Yes.

11 Q. What did they tell you about how much PIM is internal PIM
12 that's present?

13 A. They both told me that internal PIM, once a radio has
14 been installed, because of the installation guidelines, that
15 it's not at all prevalent, that it's very rare, that it would
16 actually crop up, and because of the regular maintenance of
17 the towers, it wouldn't be present for very long, and if it
18 was -- if it did crop up.

19 Q. Were you here when they raised their right hand, swore to
20 tell the truth, and said exactly that in this courtroom?

21 A. Yes.

22 Q. Okay.

23 MR. DACUS: May I have the document camera, Ms.
24 Brunson?

25 Q. (BY MR. DACUS) Now, you also had available to you other

1 AT&T information on this issue. Correct?

2 A. Yes.

3 Q. This is the information that you and I just looked at a
4 minute ago on the number of times that they have to send a
5 repairman to cure internal PIM. Correct?

6 A. Yes.

7 Q. To be clear, because of the criticism saying this study
8 was created after the lawsuit, was this -- did this
9 information, this AT&T information, was it kept in the
10 ordinary course of business long before this lawsuit?

11 A. Yes.

12 Q. As far back as 2017?

13 A. Yes.

14 Q. So on this issue of is there really a lot of internal PIM
15 or not, what does this information tell us?

16 A. This information which they've been keeping since -- at
17 least since 2017 would say that the level or the incidence
18 rate of problematic internal PIM is actually far lower than
19 Mr. Taylor's sort of one-day study indicated.

20 Q. That's what I want to ask you about. Based on the study,
21 you used an assumption that PIM is present in 1.19 percent of
22 the time as a problem.

23 A. Yes.

24 Q. Correct?

25 A. Yes.

1 Q. If we go look at the actual data for how many repairs
2 there are made on the million radios per year, that's the
3 information you told us to look at beside my red dot, what
4 does the actual data kept before this lawsuit show the
5 incident rate to be?

6 A. Less than .4 percent.

7 Q. Okay. So let's just say, rough numbers, 4,000. It's
8 really closer to 3-, but let's just 4,000 per million. I want
9 to be very clear. What percentage is that?

10 A. .4 percent.

11 Q. .4 percent.

12 A. Yes.

13 Q. That's .004 if we're doing it in decimal. Correct?

14 A. Yes.

15 Q. And you used for your assumption what percentage number?

16 A. 1.19. So basically 1.2.

17 Q. So the actual data shows that's the incidence of internal
18 PIM in the radios is more or less than what you actually used
19 in your assumption?

20 A. It's about a third less than -- if you look over the
21 five-year period at all the million radios, it's about a third
22 less than I assumed.

23 Q. So on the question of is internal PIM really present and
24 is it a problem, what's the conclusion?

25 A. It's -- this data is consistent with Mr. Taylor's

1 national test which is consistent with their testimony which I
2 think is consistent with common sense about the way they
3 accept the radios at installation by the vendors, is that it's
4 just not a prevalent problem. It does creep into the network,
5 but it's not prevalent.

6 Q. So when we go through those questions of you only relied
7 on one day of testing for something that nobody knows who they
8 did it for an algorithm that we don't know about, is that
9 accurate at all?

10 A. No, no. As I said, the specific number -- I need a
11 specific number to put in the spreadsheet, and I used the 1.19
12 percent, but it's not accurate to say that that's the only
13 thing I'm considering in reaching my conclusion.

14 Q. If you had used the actual data, .4 percent, your number
15 actually would have been lower. Correct?

16 A. Yes.

17 Q. With respect to that algorithm, did you read Mr. Taylor's
18 deposition in this case?

19 A. Yes.

20 Q. You remember the Judge instructing the jury that those
21 depositions often last seven hours?

22 A. Yes.

23 Q. Did you read where they questioned Mr. Taylor extensively
24 about that algorithm?

25 A. Yes.

1 Q. So they know all about it. Is that true?

2 A. Well, they had an opportunity to question him for seven
3 hours. So I don't recall, you know, how much detail they got
4 into, but I know they had an opportunity to ask him about the
5 algorithm.

6 Q. With respect to the -- Mr. Smith's offer to license these
7 patents to Intellectual Ventures, is -- do you remember those
8 questions from Ms. Fair about what did Intellectual Ventures
9 think?

10 A. Correct. I do recall those.

11 Q. Is what's more important to your analysis what
12 Intellectual Ventures thought or what Mr. Smith thought with
13 respect to the value of his patents?

14 A. It is what Mr. Smith and what Finesse as a company
15 thought. It's -- I'm not considering or really relying on
16 whether Intellectual Ventures -- what they thought.

17 Q. In other words, if we were buying a house and the seller
18 of the house offered the house for a hundred thousand dollars,
19 is that what we expect the seller believes it's worth?

20 A. I think that's fair if that was their asking price
21 straight out of the box.

22 Q. If we did focus on Finesse -- I mean, on Intellectual
23 Ventures, I think Ms. Fair asked you, did Intellectual
24 Ventures have all the information then that you have now. Do
25 you remember that question?

1 A. Correct.

2 Q. So if we gave Intellectual Ventures all the information
3 we have now--that is, that PIM cancellation is only present in
4 eight percent of the radios in the network, 99 percent of them
5 have no internal PIM, in the one percent where internal PIM is
6 present, it only cures it 30 percent of the time--do you think
7 that Intellectual Ventures would value these patents at the
8 tens of millions of dollars that Finesse does?

9 A. No.

10 Q. You were also asked some questions about Mr. Bazelon's
11 theory and whether or not he's proposing that AT&T would buy
12 spectrum. Do you remember that?

13 A. Yes.

14 Q. And Ms. Fair, like Finesse's lawyers yesterday, said
15 that's not their position. Do you remember that?

16 A. Yes.

17 Q. And they tried to get you to admit that that's not Doctor
18 Bazelon's position. Do you remember that?

19 A. Yes.

20 Q. And if I understood you, you said, no, that is Doctor
21 Bazelon's position.

22 A. It is -- it is Doctor Bazelon's position, at least as
23 expressed by all the math that leads to his numbers.

24 Q. Okay. So your impression was that Doctor Bazelon's
25 calculation was, this is how much spectrum AT&T would need to

1 buy. Correct?

2 MS. FAIR: Objection, leading, Your Honor. He's
3 been leading this witness most of his redirect.

4 THE COURT: Well, when you objected, I sustained it
5 and I'll sustain this.

6 MR. DACUS: Understood.

7 THE COURT: Avoid leading, counsel.

8 MR. DACUS: Thank you, Your Honor.

9 Q. (BY MR. DACUS) Do you have an understanding as to what
10 Doctor Bazelon was proposing, at least in substance?

11 A. In substance in his report and in his calculations, I
12 have an understanding that -- of what he is proposing.

13 Q. And do you have an understanding as to at least what
14 Finesse is now telling the jury whether or not Doctor Bazelon
15 is proposing that this is what AT&T would buy as spectrum?

16 A. I have an understanding from sitting through this trial
17 that they are -- appear to now be saying, oh, no, no, no, he's
18 not trying to say that he's valuing the damages through the
19 implied amount of spectrum -- additional spectrum that AT&T
20 would -- would need to acquire. They're trying to say that's
21 not what he's saying, but that's not what he did.

22 Q. Were you here when the Judge told the jury they're going
23 to have to judge credibility in this case?

24 A. Yes.

25 Q. Were you here when he specifically said, you need to

1 compare what folks said before this lawsuit with what they say
2 in this courtroom? Were you here for that?

3 A. Yes.

4 Q. And so now Finesse is saying, no, Doctor Bazelon is not
5 proposing that you buy spectrum. That's their position.
6 Correct?

7 A. That appears to be, yes.

8 Q. Now, Doctor Bazelon did a written report in this case.
9 Correct?

10 A. Yes.

11 Q. Did you read that?

12 A. Yes.

13 MR. DACUS: May I have the document camera?

14 MS. FAIR: Objection, Your Honor. This is hearsay.
15 He's publishing to the jury the report of an expert.

16 THE COURT: I'll sustain that.

17 Q. (BY MR. DACUS) Do you remember in Doctor Bazelon's
18 report that he specifically said --

19 MS. FAIR: Objection. He is telling the jury what
20 is hearsay. The report is outside statements. He had Doctor
21 Bazelon on the stand to cross-examine him. He should not be
22 allowed to read from the report. It's the same as putting it
23 up in front of the jury.

24 THE COURT: While an expert like Doctor Becker
25 cannot be a mere conduit for outside hearsay testimony, he is

1 entitled to rely on it and he is entitled to testify about
2 what he has relied on.

3 So I'll allow you to examine this witness about the
4 hearsay from Doctor Bazelon's report that he has relied on in
5 his report, but you're not to publish it per se and you're not
6 to quote or read from it. You're to ask this witness and let
7 him explain what he relied upon. Understood?

8 MR. DACUS: With one question, Your Honor. May we
9 approach?

10 THE COURT: Approach the bench.

11 (The following was had outside the hearing of the
12 jury.)

13 MR. DACUS: I understand that I'm to use it as a
14 demonstrative, but I'd like to publish it as a demonstrative,
15 not as an exhibit but as a demonstrative.

16 THE COURT: You want to use Bazelon's report as a
17 demonstrative with Becker?

18 MR. DACUS: Because they have said clearly to this
19 jury --

20 THE COURT: That's just an end-around about using
21 the expert's report, using this expert as a conduit to get
22 into hearsay of Bazelon's report.

23 MR. DACUS: Well, as Your Honor just -- well, it's
24 directly to contradict what they told the jury.

25 THE COURT: I'm telling you, you can't go there.

1 I'm telling you about how you can go there versus how you
2 can't. And you can question Doctor Becker about what he
3 relied on and specifically about those portions of Bazelon's
4 report he relied on, but you can't publish the report and you
5 can't read from it per se. That's the same thing as Becker
6 being a conduit for hearsay.

7 MR. DACUS: So I'm just trying to be clear with the
8 Court. My question is going to be exactly what he said in the
9 report. I'm not going to read from it, but it's going to be
10 the same. So I just don't want them to say --

11 MS. FAIR: Your Honor, he can't feed the witness
12 what he wants Doctor Becker to say. If he wants to ask Doctor
13 Becker what his understanding was of the report after he read
14 it, a fair open-ended question, that's one thing. But if he
15 wants to try and feed hearsay to him under Rule 703 --

16 THE COURT: I agree. You're going to have to ask
17 Doctor Becker what he understood Doctor Bazelon's report to
18 mean.

19 MR. DACUS: I will do that.

20 THE COURT: Okay.

21 MR. DACUS: Thank you.

22 (The following was had in the presence and hearing
23 of the jury.)

24 THE COURT: All right. Let's proceed.

25 MR. DACUS: Thank you, Your Honor.

1 Q. (BY MR. DACUS) From Doctor Bazelon's report and the
2 substance of his testimony, did you understand that the
3 royalty he's proposing allows AT&T to buy spectrum?

4 A. Yes. The fundamental economic premise of his model, and
5 he's explicit about this in his report, is he's looking
6 at -- he assumes that without the PIM-C, the Nokia PIM-C, AT&T
7 would need to acquire additional spectrum to be able to run
8 their network at the same performance level.

9 And he very specifically then says how much is
10 that -- would it cost to get that spectrum. That is the
11 fundamental math in his -- in his model, and it's what he
12 expressed as the methodology in his report.

13 Q. Do you think that is appropriate or inappropriate in this
14 case?

15 A. I think it completely -- it's inappropriate, it doesn't
16 measure what this technology does.

17 MR. DACUS: I have no further questions, Your Honor.
18 I pass the witness.

19 THE COURT: All right. Additional cross
20 examination?

21 MS. FAIR: Yes, Your Honor.

22 THE COURT: Proceed with additional cross.

23 RECROSS EXAMINATION

24 By Ms. Fair:

25 Q. Doctor Becker, Mr. Dacus suggested that if we had just

1 asked the right question, maybe Mr. Taylor would have told us
2 about how he came up with whether or not to put a 0 or a 1 in
3 those columns you used to cut down to 300 radios.

4 A. Yeah, something to that effect. I think he was
5 indicating that you had an opportunity to question him about
6 that.

7 Q. And Mr. Taylor testified live in this trial. Right?

8 A. Yes.

9 Q. And when Mr. Ward asked him that for the one-day snapshot
10 of data the algorithm is proprietary, it's secret. Correct?

11 A. Yes.

12 Q. Mr. Taylor said it is proprietary, yes. Right?

13 A. Yes.

14 Q. And the Defendant's lawyers also had the opportunity to
15 ask Mr. Taylor to explain to the jury how he did his analysis.
16 Right?

17 A. Yes.

18 Q. And we never heard any testimony about what columns he
19 looked at in that snapshot of some of the radios from one day
20 to add or subtract or what math was done or what algorithm.
21 They never asked him, either, did they?

22 A. Correct.

23 Q. Because he told us, testified, it's proprietary, it's
24 secret.

25 A. Well, he definitely testified to that. I don't know that

1 that's why they -- you said because -- I don't know if that's
2 why neither side asked him any questions about that. I'm sure
3 if he was asked, he probably would have answered.

4 Q. And that data doesn't look at how much PIM is caused by
5 band 25, band 66, band 29; all it looks at is bands 14 and 17.
6 Right?

7 A. Correct.

8 Q. And the site visits that you put up also don't show how
9 much PIM is caused by combining, for example, bands 12, 14,
10 and 29 in a single tri-band radio. Right?

11 A. Well, those site visits would be -- to the extent that
12 there are any site visits caused by radios where that is
13 happening, that would be in there. It's not granular enough
14 to peel out and say, Let me look at the site visits associated
15 with tri-band radios.

16 Q. So we don't know amongst those which ones are band 12,
17 band 14, band 29 problems. We don't know what's cured by
18 PIM-C. That's not really a test or data that measures that,
19 is it?

20 A. No. It's looking at it from the other end. It's looking
21 at it from, Okay, what's at the end of the day, what does it
22 tell us the prevalence was; not down at the granular level of
23 what's really causing it.

24 Q. The problem of combining the bands that are combined in
25 the radios in this case is not something you looked at, is it?

1 A. Correct.

2 MS. FAIR: I'll pass the witness.

3 THE COURT: Additional direct?

4 MR. DACUS: Yes, Your Honor.

5 THE COURT: Proceed.

6 MR. DACUS: Thank you.

7 REDIRECT EXAMINATION

8 By Mr. Dacus:

9 Q. Given the totality of all the evidence you've seen in
10 this case with respect to this issue of how much internal PIM
11 is present, do you still stand by the fact -- your 1.19
12 percent number?

13 A. Oh, absolutely. I think the totality of the evidence
14 would indicate that that's very conservative.

15 Q. Conservative meaning it's actually high?

16 A. It's high, and I think Mr. Taylor indicated that in his
17 opinion, in his testimony, he said he thought it was a little
18 high. And that's consistent with the truck roll data and
19 everything else I've heard.

20 Q. And this information related to site visits, that's
21 across all of the radios. Correct? In the AT&T network.

22 A. Yeah, 990-something-thousand radios.

23 MR. DACUS: That's all I have, Your Honor. I pass
24 the witness.

25 THE COURT: Additional cross examination?

1 MS. FAIR: No, Your Honor.

2 THE COURT: All right. You may step down, Doctor
3 Becker.

4 AT&T and Nokia, called your next witness.

5 MR. DACUS: And this time, Your Honor, AT&T and
6 Nokia rest their case.

7 THE COURT: All right. The Defendant and Intervenor
8 have rested their case in chief.

9 Does the Plaintiff have rebuttal witnesses to call?

10 MR. GRINSTEIN: Your Honor, may I confer with
11 Mr. Ward real quickly?

12 THE COURT: You may.

13 (Pause in proceedings.)

14 MR. GRINSTEIN: Your Honor, Plaintiff has no
15 rebuttal.

16 THE COURT: All right. So both sides in this case
17 at this juncture rest and close, subject to final instructions
18 from the Court to the jury and closing arguments. Correct?

19 MR. GRINSTEIN: Yes from the Plaintiff, Your Honor.

20 MR. DACUS: And yes from AT&T and Nokia, Your Honor.

21 THE COURT: All right. Ladies and gentlemen of the
22 jury, that means you have now heard all the evidence in this
23 case.

24 There are certain things I need to take up with counsel
25 outside of your presence before I will be in a position to

1 give you my final instructions on the law and to allow counsel
2 for the competing sides to present their closing arguments to
3 you.

4 Let me say it another way. You get the rest of the day
5 off, but I need you back here in the morning at 8:30 ready to
6 go. There is lunch in the jury room ready for you. It's five
7 minutes until 12:00 now. I'm sure it's there. You're welcome
8 to eat; you're welcome to leave and leave the food behind.
9 It's whatever you want to do, ladies and gentlemen.

10 My instructions, though, follow you wherever you go. You
11 are not to discuss the case with yourselves or with anyone
12 else or communicate about anything that's happened during this
13 trial in any way. And at this late stage after all this work
14 and effort, it would be a travesty to jeopardize that if that
15 particular instruction were violated in any way. So please be
16 vigilant about making sure you comply with that and every
17 other instruction I've given you.

18 I'd ask you to be here by 8:15 in the morning, assembled
19 and ready to start at or near 8:30. Travel safely to your
20 homes when you leave. And with that, you're excused until
21 tomorrow morning.

22 (Whereupon, the jury left the courtroom.)

23 THE COURT: Be seated, please.

24 Counsel, for your information, Plaintiff had 37 minutes
25 remaining of trial time, Defendant had 1 hour and 31 minutes

1 of remaining trial time.

2 We're going to break for lunch. When we come back from
3 lunch, I will take up motions presented by either party under
4 Rule 50(a) of the Federal Rules of Civil Procedure. If you
5 are going to present any part of the closing arguments
6 tomorrow, you're not required to be here. There are more than
7 enough lawyers on both sides of this case to cover the
8 practice under Rule 50(a) and the informal and formal charge
9 conference that will need to take place this afternoon.

10 When I reconvene after lunch, as I say, I will take up
11 motions under Rule 50(a).

12 Let me just say this. On the one hand, it's very common
13 for the younger members of the trial team to be asked to argue
14 the motions under Rule 50(a), and I certainly applaud our more
15 junior members of the Bar getting an opportunity to get some
16 live courtroom experience.

17 On the other hand, sometimes those less experienced
18 lawyers forget that I have heard all the evidence, and it's
19 happened more than once that I take up motions under Rule
20 50(a) and some lawyer stands at the podium and looks at me and
21 says, Your Honor, this is a patent case. I've been here the
22 whole trial. I've heard all the evidence. Please ask
23 whoever's going to present your motions to be targeted and
24 succinct and get to the point.

25 After I've completed hearing the motions from either

1 side under Rule 50(a) and ruling on those motions, then I'll
2 conduct an informal charge conference in chambers. I've
3 received your latest iteration of the proposed final jury
4 instructions and verdict form as requested yesterday
5 afternoon. I've had time to look at it. I think we can make
6 good prompt progress when we get to the informal charge
7 conference.

8 I would hope we could complete the formal charge
9 conference today so that we won't need to do that in the
10 morning, but I have to maintain my entire staff at the time we
11 do the formal charge conference. If the process takes longer
12 than expected, I may send them home and I may bring you back
13 for the formal charge conference earlier than 8:30 in the
14 morning. I hope we don't have to do that. I think there's a
15 good chance we won't. We'll see how the rest of today goes.

16 We're going to recess for approximately 45 or 50 minutes.
17 About 10 minutes until 1:00, I'll be back in here to hear
18 motions under Rule 50(a). Again, if you are not involved in
19 that process or in the charge conference process, you're not
20 required to be here.

21 Do we know at this point and can the parties tell me who
22 will be presenting closing arguments for the respective sides?

23 MR. GRINSTEIN: Your Honor, for the Plaintiff, I
24 will open the closing and Mr. Ward will provide the rebuttal.

25 THE COURT: All right.

1 MR. DACUS: The expectation on our side, Mr. Nelson
2 and I will split it, Your Honor.

3 THE COURT: All right. That will be perfectly fine.

4 Is there anything else that either side needs to raise
5 with me before we recess for lunch?

6 MR. GRINSTEIN: Nothing from the Plaintiffs. Thank
7 you, Your Honor.

8 MR. DACUS: Nothing from us.

9 THE COURT: I'll see you after lunch.

10 Court stands in recess.

11 (Lunch Recess.)

12 THE COURT: Be seated, please.

13 Having completed the presentation of the evidence, having
14 released the jury for the day, we'll proceed to take up
15 motions either party may care to offer before the Court
16 pursuant to Rule 50(a) of the Federal Rules of Civil
17 Procedure.

18 Let me do this. My typical practice, counsel, is to
19 first identify topically any area or substantive relief that
20 either party's requesting under the rule, and then I'll go
21 back and structure and hear arguments. It's often the case
22 that I get directly diametrically opposing motions and it
23 makes sense to hear argument, both on the positive and the
24 negative, the affirmative and the negative version at the same
25 time.

1 So let me first find out what both sides want to move on,
2 and then we'll talk about how to present the argument related
3 to those matters.

4 Let me turn to Plaintiff first. What matters does
5 Plaintiff wish to move on for relief under Rule 50(a), if any?

6 MS. GRIFFITH: Thank you, Your Honor. Meg Griffith
7 for Plaintiff Finesse.

8 Finesse intends to move under Rule 50(a) for judgment as
9 a matter of law on whether the Defendants infringe the
10 asserted claims of the '775 Patent.

11 THE COURT: Infringement of the '775 Patent.

12 Anything further?

13 MS. GRIFFITH: No, Your Honor.

14 THE COURT: All right. What matters, if any, do the
15 Defendant and Intervenor care to seek relief under Rule 50(a)
16 in regard to?

17 MS. STRAKA: Your Honor, Brianne Straka for the
18 Defendants.

19 THE COURT: Yes.

20 MS. STRAKA: Defendants intend to move for JMOL or
21 judgment as a matter of law under Rule 50(a) with respect to
22 non-infringement on the '134 Patent, each of the asserted
23 claims; non-infringement on the '775 Patent, all of the
24 asserted claims; invalidity of the '134 Patent and invalidity
25 of the '775 Patent; the '775 asserted claims are obvious.

1 And we also have a number of motions that we intend to
2 make with respect to damages.

3 THE COURT: Can you identify the particular matters
4 related to damages that you seek to move on?

5 MS. STRAKA: Yes, Your Honor. I picked up the wrong
6 sheet of paper, though. May I --

7 THE COURT: You may retrieve the proper sheet of
8 paper.

9 MS. STRAKA: Thank you, Your Honor.

10 With respect to damages, we intend to move that there is
11 insufficient evidence to support an award of damages. In
12 particular, there's insufficient evidence to support a reward
13 of a running royalty -- of a running royalty.

14 Furthermore, the Defendant -- or the Plaintiff did not
15 present sufficient evidence to support a verdict of a lump sum
16 royalty. And there is no or insufficient evidence in the case
17 to support an amount of a lump sum royalty over \$1.35 million.

18 I have some more notes here about some of the more
19 particulars, but I think everything falls, generally speaking,
20 into those categories.

21 THE COURT: It's your view that that fully apprises
22 the Court of the relief that you and your clients are seeking?

23 MS. STRAKA: Yes, Your Honor.

24 THE COURT: Okay. All right. Well, it's clear that
25 we have diametrically opposed motions with regard to the issue

1 of infringement or non-infringement of the '775 Patent. So I
2 will take that up, and then we'll turn to the remaining
3 matters raised by Defendant and Intervenor.

4 Let me hear argument first from the Plaintiff regarding
5 the issue of infringement in the '775 Patent. Then I'll hear
6 from Defendant and Intervenor.

7 It's good to see you, Mr. Capshaw. I see they let you
8 come inside the Bar and sit at the counsel table.

9 MR. CAPSHAW: They did. They uncaged me, Your
10 Honor.

11 THE COURT: Good.

12 Go ahead, counsel.

13 MS. GRIFFITH: Thanks, Your Honor. Meg Griffith
14 again for Finesse.

15 Finesse is entitled to judgment as a matter of law on the
16 asserted claims of the '775 Patent because there is
17 substantial evidence, and none of it has been controverted,
18 that Defendants AT&T and Nokia's accused products infringe
19 those asserted claims.

20 Finesse is satisfied its prima facie case of infringement
21 has substantial evidence. Among other evidence, Mr. Smith,
22 the inventor and current CEO of Finesse, testified to the
23 issuance of the '775 Patent and its assignment to Finesse
24 Wireless, LLC.

25 Finesse asserted seven claims in that patent--claims 1,

1 4, 9, 16, 21, 29, and 36. And Finesse's infringement expert,
2 Dr. Jonathan Wells, painstakingly explained to the jury how
3 every single of those infringed claims have been satisfied.

4 Defendants have not controverted that substantial
5 evidence and Finesse's entitled to judgment as a matter of law
6 because the jury has no evidence of non-infringement to
7 consider. Specifically, in a non-infringement argument on the
8 '775 patent, Defendants' non-infringement expert, Mr. Proctor,
9 put forward a single --

10 THE COURT: Could you slow down, Ms. Griffith?

11 MS. GRIFFITH: Yes, Your Honor.

12 Mr. Proctor put forward only a single argument as to why
13 the '775 Patent was not infringed. And that was the
14 limitation common to each of the asserted claims, including
15 the three signals, S1, S2, and S3.

16 But the problem with Mr. Proctor's argument is that he
17 had prepared an infringement opinion based solely on
18 Defendants' preferred claim construction which Defendants had
19 not raised with the Court during the *Markman* process and
20 instead raised through a motion for summary judgment.

21 As this Court is aware, the Court has construed the three
22 signals term under the *02 Micro* case and construed that term
23 as separately identifiable signals but not limited to three
24 unique signals.

25 Now, Defendants are aware that under the federal rules

1 Mr. Proctor's limited to testifying within the scope of his
2 report. But even after the Court construed the S1, S2, S3
3 term, Defendants did not seek to supplement Mr. Proctor's
4 report and he went to the stand to testify on those opinions
5 that were foreclosed by the Court's construction because he
6 argued and based his analysis on the construction that the
7 three signals do have to be unique. Because he was limited to
8 his report, Mr. Proctor conflated the phrases separately
9 identifiable and unique.

10 Mr. Proctor's opinion would nullify the Court's claim
11 construction of the term, so his opinions under that
12 construction are not acceptable for a reasonable jury to
13 consider for infringement. In particular, Mr. Proctor pointed
14 to the limitation citing the three signals in each of the
15 asserted independent claims and imported into each of the
16 asserted dependent claims. His analysis did not apply the
17 Court's construction. Instead, he asserted that because the
18 accused products use two transmit signals to compute
19 intermodulation products, there were not three separately
20 identifiable signals.

21 The evidence is undisputed that calculating third order
22 intermodulation products requires combining three signals
23 together regardless of whether those signals are unique. But
24 Mr. Proctor, by conflating the terms separately identifiable
25 and unique, argued that even though there were two input

1 signals X1 and X2 that were both used to create third order
2 intermodulation products, those input signals were not
3 separately identifiable.

4 Mr. Proctor then argued that because Doctor Wells had
5 mapped those two transmit signals to the three terms S1, S2,
6 and S3, those are not separately identifiable. Mr. Proctor
7 continued this impermissible argument by saying that Doctor
8 Wells had not pointed to seven multiplications which Mr.
9 Proctor interpreted to require seven unique results.

10 By definition, if the S1, S2, and S3 signals must be
11 separately identifiable but not limited to three unique input
12 signals, then it is possible that some of those seven
13 multiplications will not be unique results. This does not
14 mean they do not exist in the product, but that in mapping
15 those multiplications, Doctor Wells was still pointing to the
16 seven multiplications in the three results that were in the
17 accused products.

18 Among other evidence, Doctor Wells pointed to Plaintiff's
19 Exhibit 858 at pages 2164 and -65. These pages show the
20 signals X1, X2 going into the non-linear block of GROOT to
21 estimate intermodulation products. And as Doctor Wells
22 highlighted on those pages, if X1 is S1 and S2, and X2 is S3,
23 then all of the possible combinations of these signals X1 and
24 X2 as third order intermodulation products are present.

25 Based on the mapping of these by Doctor Wells, the seven

1 multiplications result in three unique combinations which are
2 all to be found on page 2164 and 2165 of Exhibit 858.

3 Mr. Proctor's argument, as explained, was impermissible
4 and does not undermine or come close to controverting Doctor
5 Wells' analysis and for the same reasons, Defendants' cross
6 examination of Doctor Wells did nothing to controvert his
7 analysis of S1, S2, S3 limitation and the asserted claims of
8 the '775 Patent because the questions to Doctor Wells for that
9 limitation rested solely on the question of the number of
10 unique input signals or the number of unique results for the
11 seven multiplications, neither of which are permissible under
12 this Court's claim construction.

13 The reason Defendants' expert has made this argument as
14 explained is because this is why Mr. Proctor is limited to his
15 expert report. Mr. Proctor has made no acceptable arguments
16 for non-infringement of this limitation, and he gave no
17 testimony regarding non-infringement of any other limitation
18 in the asserted claims of the '775 Patent. As a result,
19 Defendants can point to no evidence of non-infringement of
20 these elements of the '775 Patent.

21 Because the jury has no evidence that these elements were
22 not met, and Defendants have not presented sufficient evidence
23 for a reasonable jury to conclude on the a preponderance of
24 the evidence that the accused products do not infringe the
25 asserted claims of the '775 Patent, there is no reasonable

1 dispute for the jury. Finesse has presented substantial
2 evidence for the jury to consider, and therefore Finesse
3 respectfully asks this Court to enter judgment as a matter of
4 law that the asserted claims of the '775 Patent are infringed.

5 THE COURT: All right. Let me hear competing
6 argument from AT&T and Nokia on this matter.

7 MS. STRAKA: Thank you, Your Honor.

8 Defendants Nokia and AT&T move for judgment as a matter
9 of law with respect to claims -- all asserted claims of the
10 '775 Patent.

11 THE COURT: Let me stop you.

12 MS. STRAKA: Yep.

13 THE COURT: Both of you ladies are reading the text
14 of your argument, and you're reading very fast. And it's been
15 a long week, and I want to follow your arguments. And I want
16 the court reporter to have an opportunity to get them down
17 accurately. So I'm going to ask, please slow down.

18 MS. STRAKA: I will, Your Honor. Thank you.

19 THE COURT: And that goes for everybody in the room,
20 not just you, Ms. Straka.

21 All right. Please continue.

22 MS. STRAKA: Thank you, Your Honor.

23 The key limitation to -- in the '775 Patent asserted
24 claims is the limitation that reads, given three signals, S1,
25 S2, and S3, digitally multiplying and filtering another seven

1 equations that are listed and this is for the calculation of
2 the ICSs, an nth order ICS where n is an integer.

3 Each asserted claim requires that limitation, and as Your
4 Honor knows, Magistrate Judge Payne construed that claim
5 limitation in the context of summary judgment briefing as,
6 signals which must with separately identifiable but are not
7 limited to three unique input signals. That is the
8 construction that Your Honor adopted in this case and that is
9 the construction that was applied by Mr. Proctor in his
10 analysis in this case.

11 Doctor Wells' presentation of evidence with respect to
12 the '775 Patent, particularly in relation to this limitation,
13 was insufficient. Doctor Wells repeatedly testified that he
14 identified only two input signals, X1 and X2. The claim
15 limitation is not limited to three unique input signals, but
16 the claim limitation does require there be three signals, S1,
17 S2, and S3, and each one of those three signals must be
18 separately identifiable.

19 In his analysis, Doctor Wells only identified X1 and X2,
20 and then he presented the jury with a chart that purported to
21 map the three claim signals, S1, S2, and S3, to the two
22 signals in the Nokia implementation X1 and X2. Therefore, he
23 never identified a third signal for the jury to consider.

24 When he did his mapping, he used the very same signal,
25 X2, and he mapped it both to S2 and S3. That is not

1 permissible under the Court's construction here which does
2 require that the three signals must be separately
3 identifiable.

4 Doctor Wells then -- his analysis was also insufficient
5 because he never then tried to show that the claimed
6 equations, the multiplications that are in the patent, were
7 actually in the product. So Doctor Wells' analysis where he
8 showed how X1 and X2 could map to S1, S2, and S3 was a purely
9 hypothetical mapping. He never showed that even the three
10 equations that that would boil down to were in the product.
11 And, in fact, he didn't show that any single one of the
12 multiplications that are required by the claim are in the
13 product.

14 Taken to a logical extreme, the evidence in this case
15 would be that Doctor Wells could have pointed to a single
16 signal and said that single signal cubed met the limitations,
17 that's what the Plaintiffs are arguing here and the Court's
18 construction does not permit that. And that's -- the evidence
19 in this case did not show that there was a third signal that
20 is used in the calculation of the intermodulation product
21 cancellation signals as they had identified them with respect
22 to the '775 Patent.

23 THE COURT: Anything further?

24 MS. STRAKA: That's all, Your Honor.

25 THE COURT: All right. Let me move forward and hear

1 argument regarding Defendants' motion under Rule 50(a) for a
2 finding of no infringement as to the '134 Patent.

3 Go ahead, Ms. Straka.

4 MS. STRAKA: Thank you, Your Honor.

5 With respect to the '134 Patent, we have several reasons
6 why this claim was not met as a matter of law. With respect
7 to each of the '134 Patent asserted claims, they require
8 oversampling at a desired frequency, a passband of receive
9 signals to create a bit stream wherein the received signals
10 include signals of interest and interference generating
11 signals.

12 I think I note that one of the claims of the three only
13 says sampling and not oversampling, but each of the three
14 asserted claims have a substantially similar limitation that
15 requires either sampling or oversampling with those
16 requirements.

17 Doctor Wells presented no evidence that there is a set of
18 receive signals that include both the signal of interest and
19 the interference generating signals under the Court's claim
20 constructions in this case.

21 Signal of interest was construed to be a signal that from
22 the perspective of the receiver is both received and sent to a
23 baseband processor. Doctor Wells pointed to the downlink
24 transmit signals as the signal of interest in his analysis.
25 The downlink reference transmit signal does not meet the

1 Court's construction of signal of interest.

2 Furthermore, he pointed to something that he called the
3 interference generating signal. He pointed to the modeled PIM
4 path and he said that was a signal, but Mr. Davis testified
5 and Mr. Proctor testified that the -- both of them testified
6 that there is no such signal as the modeled PIM path signal.
7 So it identified a phantom signal as meeting the interference
8 generating signal in his analysis.

9 The way that the products actually work was also
10 presented in this case by Mr. Davis. Mr. Davis explained that
11 the receive signals come through one path. That path band of
12 receive signals is sampled and sent to the GROOT FPGA for
13 processing. Through a separate -- completely separate path,
14 the downlink transmit signals are sent to the GROOT FPGA for
15 PIM modeling.

16 And, therefore, there is no signal passband within the
17 products that includes both what the actual receive signal is,
18 which is the definition of the signal of interest, and what
19 they have identified as the interference generating signal.
20 Even if there is a modeled PIM path signal that's on that
21 other path, they're not within the same passband. And,
22 therefore, for this reason claims 1, claims 2, and claims 3
23 are not -- do not meet -- the claim limitations are not met.

24 Secondly, claims 2 and claims 3 have both been construed
25 as means-plus-function claims. Each of those claims requires

1 means for oversampling or a sampling unit to sample. Both of
2 those were construed by the Court, and the structure that is
3 required is either a Sigma Delta modulator or a flash A/D
4 converter.

5 Doctor Wells' analysis -- in Doctor Wells' analysis, he
6 pointed to a TI technical specification that -- and said that
7 that TI ADC met the claims construction, but he did not show
8 that it's a Sigma Delta modulator or a flash A/D converter.
9 He's proceeding under the assumption that it's an equivalent
10 thereto. But when he did his analysis, he didn't provide any
11 evidence that the pipelined converter's structure of the TI
12 component is an equivalent to a Sigma Delta modulator or a
13 flash A/D converter. Instead, he assumed it was equivalent
14 because it had the function of analog-to-digital conversion.

15 This is insufficient analysis as an equivalent for a
16 means-plus-function claim. It is necessary for Doctor Wells
17 to have identified why the particular structure of the TI
18 component is equivalent to the architecture of a Sigma Delta
19 modulator or a flash A/D converter. And by boiling the
20 analysis down to the function of analog-to-digital conversion,
21 he's essentially read that limitation out of the claims. He's
22 read it so that it's no longer limited to the structures that
23 were disclosed in the specification.

24 To be clear, there may be analog-to-digital converters
25 that could fall within the scope, that could be equivalent to

1 a flash ADC or a Sigma Delta modulator, but he presented no
2 such analysis.

3 The third reason why the Defendants are entitled to a
4 judgment as a matter of law of non-infringement with respect
5 to the '134 Patent is that each of the asserted claims require
6 performing phase and amplitude adjustments on estimations of
7 intermodulation product interfering signal in a closed loop
8 manner.

9 Doctor Wells presented insufficient evidence that the
10 products work in a closed loop manner. In fact, he didn't
11 describe what completed the loop, what made it be a closed
12 loop product. When Mr. Davis got on the stand, Mr. Davis
13 testified clearly that it's an open loop design, and Mr.
14 Proctor testified the same.

15 Doctor Wells' presentation did not show any feedback, it
16 does not meet the plain and ordinary meaning of how a person
17 of ordinary skill in the art would understand a closed loop
18 manner to be, and, therefore, Finesse's -- the Defendants are
19 entitled of a judgment as a matter of law of non-infringement.

20 There's one more reason that the Defendants are entitled
21 to judgment as a matter of law with respect to the '134 Patent
22 on non-infringement, and that's each of the asserted claims
23 require sub sample phase shifts to make a phase adjustment on
24 the estimations of the intermodulation product and interfering
25 signals.

1 Doctor Wells did not present sufficient evidence that
2 there was a sub sample phase shift. Again, when Mr. Davis
3 took the stand, Mr. Davis explained that the figure that he
4 actually pointed to in the products is a path on the RX, it
5 was the RX delay, had nothing to do with the delay search
6 component that Finesse identified as performing sub sample
7 phase shifting.

8 Mr. Davis also testified that that particular component
9 sampled at the rate of the receive signal. And, therefore,
10 there was insufficient evidence that -- therefore, it could
11 not -- it was not sampling on the sub sample level, and,
12 therefore, there is insufficient evidence in the record to
13 show that there was any sub sample phase shifting.

14 Your Honor, I think that concludes my argument with
15 respect to the '134 Patent.

16 It did occur to me during my argument that I think, with
17 respect to the '775 Patent, I may have -- I just wanted to
18 make it clear for the record that Mr. Proctor also did put on
19 evidence that the three signals were not there and that the
20 seven claimed multiplications were not met due to the
21 particular type of math that is done in the products. He
22 explained that it was complex math and that complex math does
23 not allow the seven multiplications to be met.

24 THE COURT: All right. Thank you.

25 Let me hear responding -- a responsive argument on the

1 motion for non-infringement as to the '134 Patent from
2 Plaintiff.

3 MS. GRIFFITH: Thank you, Your Honor. Meg Griffith
4 again for Plaintiff Finesse.

5 THE COURT: Go ahead.

6 MS. GRIFFITH: Defendants are not entitled to
7 judgment as a matter of law for non-infringement of the '134
8 Patent because Finesse has put forward substantial evidence
9 that each of the limitations in each of the asserted claims of
10 the 14 patent have been met.

11 With respect to Defendants' first argument on the set of
12 received signals containing signals of interest and
13 interference generating signals, Doctor Wells demonstrated a
14 signal of interest existed under the Court's construction.
15 Mr. Proctor, on the other hand, continually referred in his
16 direct examination to the signal of interest as an uplink or
17 as the signal of interest that one wants to receive that is
18 supposed to be received from the phone as opposed to be in a
19 two-way communication.

20 This is not to be found anywhere in the Court's
21 construction. The Court's construction requires a signal to
22 be received and sent by a receiver to the baseband processor.

23 Doctor Wells showed that this was present through the red
24 path that was in figure 1 of PX 855. Both sides agree that
25 the legend in that figure 1 describes the red path as the

1 downlink transmit reference signal and the legend also refers
2 to the modeled PIM path.

3 The downlink transmitter reference signals, according to
4 Doctor Wells' testimony, are the two transmit bands that are
5 sampled, x_1 and x_2 . These are the two signals that are viewed
6 by Doctor Wells, as explained in his testimony, as a signal of
7 interest in interference generating signal that the ADC
8 converter is trying to receive and to GROOT the baseband
9 processor.

10 Dr. Wells opined that GROOT was the baseband processor
11 and as competing testimony to what Defendants have pointed to
12 from their witnesses. Doctor Wells also provided testimony
13 that the analog-to-digital converter found in GROOT is a
14 receiver that sends the signal in digital form to GROOT. On
15 cross-examination, Mr. Proctor was forced to admit that the TI
16 specification stated that that analog-to-digital converter
17 manufactured by Texas Instruments is, in fact, a receiver.

18 The signal of interest is, therefore, met because the
19 transmit signals along the red path qualify as the signal of
20 interest in the interference generating signals that are
21 received by the ADC and sent to GROOT. Those are in a single
22 bit stream sampled at that ADC converter on the red path,
23 satisfying the first limitation of each of the claims of the
24 '134 Patent.

25 Defendants' second argument pertains to the Sigma Delta

1 modulator structure limitation in claims 2 and 3 of the '134
2 Patent. Doctor Wells testified that, based on his review of
3 the Texas Instruments technical specification, he considered
4 the Sigma -- the ADC converter from Texas Instruments to be
5 the equivalent of the Sigma Delta modulator in the flash or a
6 flash A/D converter because of the oversampling that it
7 performed and the fact that it was -- it collected a bit
8 stream with both of those signals that was then passed on to
9 the baseband processor.

10 Defendants' experts may have a -- I apologize.
11 Defendants' expert and fact witness may have a different view
12 as to what that is, but this is a matter for the jury to
13 decide as there's substantial evidence from Plaintiff.

14 The next issue raised by Defendants pertains to the
15 closed loop manner limitation in each of the three asserted
16 claims in the '134 Patent. Doctor Wells on direct examination
17 testified as to what his understanding was that a person of
18 ordinary skill in the art would understand closed loop manner
19 to mean.

20 Closed loop manner is not defined in the specification of
21 the '134 Patent and has not been construed by this Court. And
22 in providing an explanation of how he interpreted that term,
23 Doctor Wells set the standard by which he then identified the
24 closed loop. In particular, Doctor Wells noted that the
25 closed loop manner includes the term manner and stated that,

1 because of that construction, in his view, it meant trying to
2 hold a signal at a certain value. That was in the day 2
3 transcript, pages 66 to 68.

4 Doctor Wells explained why the amplitude coefficients and
5 the phase delay and delay searches in his view satisfied the
6 closed loop manner because they led to continuous alignment of
7 the signals.

8 Finally, Defendants argue that the sub sample phase shift
9 with limitation or element in the last limitation of each of
10 the asserted claims in the '134 Patent was not satisfied by
11 Finesse.

12 Again, Doctor Wells put forward substantial evidence that
13 this was met. Doctor Wells explained his view that the
14 decimating filters applied to the signal from the adaptive PIM
15 model provided the sub samples that are relevant here. And
16 Doctor Wells further testified that the delay search that he
17 looked to as the phase shift provided the sub sample phase
18 shift relevant to this element.

19 Therefore, as to each of the required limitations in the
20 '134 Patent's asserted claims, Finesse through Doctor Wells
21 has presented substantial evidence, and Defendants are not
22 entitled to judgment as a matter of law.

23 THE COURT: All right. Having heard argument with
24 regard to the issue of non-infringement concerning the '134
25 Patent, let's turn to the issue raised by Defendant and

1 Intervenor concerning invalidity as to both the '775 and the
2 '134 Patent. I'd like to hear combined argument in invalidity
3 as to both patents.

4 We'll begin with the moving Defendant and Intervenor.

5 MS. STRAKA: Thank you, Your Honor.

6 With respect to the '134 Patent, the Defendants presented
7 evidence through Mr. Proctor that all of the asserted claims
8 are obvious based on the combination of Kim in view of
9 Bazarjani.

10 Kim is a reference that teaches PIM cancellation. He
11 showed that each and every limitation of the claims was met
12 except that Kim did not explicitly disclose certain structures
13 that were required for analog-to-digital conversion. He used
14 the teachings of Bazarjani which included detailed analysis
15 with respect to Sigma Delta modulators and explained how a
16 person of ordinary skill in the art would convert analog
17 signals to digital signals and used those structures in there,
18 including decimating filters and other components, to meet
19 each and every claim of the '134 Patent. Mr. Proctor also
20 presented evidence that it would be -- there would have been a
21 motivation to combine Kim with Bazarjani.

22 As of the time of late in the late '90s, much was
23 happening to convert systems from analog to digital. Mr.
24 Proctor put forth that evidence. And he explained that a
25 person of ordinary skill in the art reading Kim would look to

1 Bazarjani in order to figure out how to do that
2 analog-to-digital conversion. He then used Kim to show how
3 the PIM cancellation features were met and presented evidence
4 that is done in a way that meets each and every claim
5 limitation of the '134 Patent.

6 He also presented evidence at the end of his argument, at
7 the end of his presentation, I should say, about the lack of
8 secondary considerations in this case. He presented evidence
9 about the lack of a long-felt need. He presented evidence
10 about how the results were not unexpected, and that was even
11 under the cross-examination that was presented by Mr.
12 Grinstein. There is insufficient evidence of secondary
13 considerations here to create -- to rebut Defendants' prima
14 facie case here of obviousness in light of Kim and Bazarjani.

15 During his analysis Mr. Proctor also did note that the
16 level of ordinary skill in the art is not a relevant
17 consideration here and that the parties didn't really dispute
18 the level of ordinary skill in the art in the case.

19 Plaintiff chose not to present a rebuttal presentation on
20 that, and Mr. Grinstein's cross-examination of Mr. Proctor did
21 not demonstrate that any of the limitations were missing in
22 the combination of Kim and Bazarjani. He asked Mr. Proctor
23 questions that asked whether or not Bazarjani taught
24 cancellation, and he asked a couple of questions about whether
25 or not Kim explicitly said anything about digital. But again,

1 that comes from the combination, and Mr. Proctor presented a
2 prima facie case that it is all present there in the
3 combination, and the Defendants presented no rebuttal to that.

4 Turning to the '775 Patent, Mr. Proctor put forth a prima
5 facie case that all of the asserted claims are obviousness
6 over a combination of McCalister in view of Lui. The Lui
7 reference was discussed repeatedly in this case, and it was
8 shown to be math that has been known certainly since the '90s
9 when the paper was published, but witnesses, including Mr.
10 Smith and including Mr. Proctor and including Doctor Wells,
11 testified that this math has been well-known for a very long
12 time. The math for calculating intermodulation products has
13 been known for many years, and that's the primary reason that
14 Lui was used in the combination.

15 Mr. Proctor put forth substantial evidence that each and
16 every limitation of all of the asserted claims of the '775
17 Patent were met by the McCalister reference, given what a
18 person of ordinary skill in the art would have known and found
19 obvious at the time.

20 The only thing that McCalister did not explicitly say was
21 a power series description for the math that is claimed in the
22 '775 asserted claims, and therefore Mr. Proctor explained that
23 a person of ordinary skill in the art would know that math but
24 also look to Lui to confirm that math. And so that math was
25 presented using the Lui reference.

1 Again, at the end of his presentation, Mr. Proctor
2 presented evidence that there is lack of secondary
3 considerations here. There was certainly no substantial
4 evidence that would rebut the Defendants' prima facie case of
5 obviousness with respect to the '775 Patent here. Plaintiff,
6 again, chose not to provide a rebuttal to the arguments that
7 Mr. Proctor presented. And, therefore, the Defendants move
8 for judgment as a matter of law to invalidity with respect to
9 all of the asserted claims of the '775 Patent.

10 THE COURT: All right. Let me hear responsive
11 argument from Plaintiff in regard to invalidity concerning the
12 two asserted patents.

13 MS. GRIFFITH: Thank you, Your Honor. Meg Griffith
14 again for Plaintiff Finesse.

15 Defendants' position that Finesse is required to call a
16 validity expert to rebut Defendants' invalidity defenses on
17 the '134 and '775 Patents has already been rejected by the
18 Federal Circuit in a decision affirming a judgment of this
19 Court in Core Wireless Licensing, S.A.R.L. versus LG
20 Electronics, Incorporated, 880 F.3d 1356, in 2018.

21 At page 1364 of the Federal Circuit's opinion in Core
22 Wireless, the Federal Circuit stated, A patent is presumed
23 valid and the burden of establishing invalidity rests on the
24 party asserting it with clear and convincing evidence. Here
25 it is Defendants who have that burden.

1 The Federal Circuit continued to explain that, although
2 the burden may shift to the patentholder if that burden is
3 met, the outcome of an alleged infringer's invalidity defense
4 at trial depends on whether the alleged infringer has carried
5 its burden of persuasion to prove by clear and convincing
6 evidence that the patent is invalid.

7 In the Core Wireless case tried before this Court, LG as
8 Defendant presented testimony of its invalidity expert and
9 Core Wireless cross-examined that expert to demonstrate why
10 those opinions were incorrect. Core Wireless did not call its
11 own validity expert in rebuttal, and LG, as Nokia and AT&T
12 have here, moved for judgment as a matter of law on that
13 basis.

14 This Court denied that motion and noted that the jury was
15 not required to give full credit and acceptance to the
16 testimony of the invalidity expert in that case. LG appealed.
17 The Federal Circuit upheld this Court's ruling and held that
18 Core Wireless had the right to choose to use its limited trial
19 clock for other purposes where it believed that LG's evidence
20 had been adequately impeached.

21 The jury is entitled to evaluate Mr. Proctor's testimony
22 and to determine whether the Defendants have clearly and
23 convincingly established that the prior art made the claims
24 here obvious.

25 Based on this and other rulings from Your Honor, the

1 Federal Circuit affirmed the judgment in Core Wireless.

2 Here Defendants have put up Mr. Proctor as their
3 invalidity expert, and Defendants' invalidity case is based on
4 obviousness of different combinations of two pieces of prior
5 art.

6 Mr. Grinstein, counsel for Finesse, cross-examined Mr.
7 Proctor on his assertions of obviousness. Among other
8 evidence, Mr. Grinstein questioned Mr. Proctor about the fact
9 that Bazarjani, which Mr. Proctor quoted as prior art showing
10 digital rather than analog signals, came before Kim. This,
11 among other evidence, undermines the motivation to combine.

12 And among other evidence, Mr. Grinstein questioned Mr.
13 Proctor about the fact that the Lui journal article used in
14 the combination for the '775 Patent had been printed long
15 before and simply stated what the problem in the industry was
16 without providing the solutions that, in combination, would
17 render the inventions in the asserted '775 claims obvious.

18 And among other evidence, Mr. Grinstein noted that the
19 math in Lui did not involve power series, just basis function.

20 Mr. Grinstein further elicited through Mr. Proctor
21 evidence of secondary considerations of non-obviousness that
22 had been presented to the jury through prior fact witnesses.
23 Among other evidence, that included industry praise and
24 recognition, unexpected results, and long-felt need.

25 Therefore, under the Federal Circuit precedent in Core

1 Wireless, Plaintiff has demonstrated substantial evidence of
2 validity and Defendants are not entitled to Rule 50 judgment
3 as a matter of law.

4 THE COURT: All right. Let's move to the general
5 topic of damages. Defendant and Intervenor have moved for
6 relief under Rule 50(a) with regard to various issues
7 connected with the damages topic, arguing that there should be
8 no damages as a matter of law; that, alternatively, there
9 should be no running royalty damages as a matter of law; and,
10 alternatively, that there should be no damages awarded as a
11 lump sum as a matter of law.

12 Let me hear from the moving parties on this. If there
13 are any other related issues that I haven't mentioned that you
14 are raising in this category under Rule 50(a), please make
15 that clear.

16 MS. STRAKA: Your Honor, Defendants move for
17 judgment of a matter of law with respect to the damages issues
18 in this case. Plaintiff Finesse did not provide sufficient
19 evidence to support an award of damages. Furthermore, Finesse
20 did not provide sufficient support to support a running
21 royalty.

22 Should the jury find the asserted claims of the '775
23 Patent valid and infringed, the jury should award no more than
24 \$1.35 million. Should the jury find that the asserted claims
25 of the '134 Patent are valid and infringed, the jury should

1 award no more than \$531,000. There is not evidence to support
2 a higher award in this case.

3 Finesse has not introduced substantial evidence that it
4 is entitled to request \$166 million in royalties because
5 Doctor Bazelon opined that if the '775 Patent is found valid
6 and infringed, the royalties to Finesse are \$58 million, and
7 if only the '134 Patent is found value it and infringed, the
8 royalties to Finesse are \$63 million.

9 He admitted that if AT&T stopped using PIM cancellation
10 technology tomorrow, that it wouldn't owe any more in damages,
11 nor has Finesse introduced substantial evidence that the
12 royalties to Finesse are \$58 million to \$63 million. Doctor
13 Bazelon's methodology is speculative and unreliable, and he
14 was not qualified to make the technical assumptions that he
15 made in this case and he -- on which his determinations rely
16 on.

17 His salvage of Doctor Bazelon's salvaged spectrum
18 analysis relies on the calculation -- let me start that again.

19 Doctor Bazelon's analysis relies on the calculation of
20 salvaged spectrum despite clear and unrebutted testimony that
21 AT&T does not measure the value of PIM-C by purchasing
22 spectrum. He conflates internal PIM with external PIM, and he
23 relies on performance assessments for non-Nokia and unaccused
24 products. He also ignores the evidence showing that AT&T
25 mitigates PIM through site hygiene.

1 Spectrum -- sorry.

2 He also assumes that spectrum is salvaged everywhere that
3 AT&T has PIM-C on, ignoring the evidence that shows limited
4 prevalence of internal PIM issues in the AT&T network,
5 including that PIM-C is not a feature in roughly two-thirds of
6 the AT&T network and uses Ericsson radios in two-thirds -- and
7 does not use the PIM-C feature in two-thirds of Nokia's radios
8 within AT&T's network.

9 AT&T's limited number of internal PIM repair tickets per
10 year, the performance data showing that even with PIM-C off,
11 less than two percent of the accused radios experience
12 internal PIM.

13 Doctor Bazelon ignores the market evidence of patent
14 purchases and license offers for comparable technology,
15 including an offer that Finesse made to IV to sell a portfolio
16 including patents in the suit for \$3 million.

17 There's also -- so, in total, this is insufficient
18 evidence to support a verdict in the form of a lump sum
19 royalty because Doctor Bazelon's analysis was based on a
20 running royalty through trial. And, again, those numbers were
21 \$58 million to \$63 million. And as I've already stated, his
22 analysis with respect to that was also insufficient, given the
23 evidence that was presented in the case.

24 And, therefore, there is no evidence in this case to
25 support an amount of a lump sum royalty over \$1.35 million as

1 was presented by Defendants' expert, Doctor Becker.

2 THE COURT: Anything further?

3 MS. STRAKA: May I have one moment to confer, Your
4 Honor?

5 THE COURT: You may.

6 (Pause in proceedings.)

7 MS. STRAKA: Your Honor, I just want to clarify for
8 the record, for all of the points that I went through, there
9 is both no evidence on these points and there's also no
10 substantial evidence to support Doctor Bazelon's analysis
11 here.

12 THE COURT: All right. Let me hear responsive
13 argument from Plaintiff, please.

14 MS. FAIR: Good afternoon, Your Honor.

15 THE COURT: Good afternoon.

16 MS. FAIR: There is sufficient evidence for a
17 reasonable jury to conclude that the damages that the
18 Plaintiff presented in this case should be awarded.

19 The Defendants first moved on there being no damages at
20 all. Doctor Bazelon was on the stand for several hours
21 walking through a detailed analysis of his methodology for
22 salvaged spectrum provided by each of these radios.

23 And taking in turn the Defendants' argument that there's
24 insufficient evidence for a running royalty, Doctor Bazelon
25 walked through how he calculated what each radio would save in

1 spectrum by using this technology, what the value of that
2 spectrum would be by radio by market based on the specific
3 operation of that radio, and how he did an economic analysis
4 rolling all of that together to get to a running royalty of
5 \$272 per radio per year if only the '134 Patent is infringed,
6 and \$251 per radio per year if the '775 Patent is infringed.

7 The Defendants criticize Doctor Bazelon for using
8 performance assessments for unaccused products. Doctor
9 Bazelon explained that that's not what he did. He relied on
10 portions of a test where AT&T applied PIM and then used actual
11 tests from Nokia to determine what the particular radio models
12 in this case would do in terms of providing performance
13 benefits.

14 The Defendants argued that AT&T does not measure the
15 performance of PIM-C by looking at salvage spectrum. But as
16 the Court knows, a damages expert is not limited to how a
17 defendant views the benefits of a patent.

18 The Defendants also ignore the wealth of other evidence
19 presented in this case, particularly with respect to arguing
20 that there's insufficient evidence for the jury to award a
21 lump sum or a lump sum of more than \$1.35 million. The
22 Defendants have argued to this jury, and we expect that they
23 will continue to argue tomorrow, that they should -- that the
24 jury should award a lump sum fully paid-up license amount.

25 Doctor Bazelon did calculations as to what that amount

1 would be should the jury determine that that's the appropriate
2 way to award damages in this case. And so Doctor Becker's
3 testimony that a lump sum is the appropriate answer and Doctor
4 Bazelon's testimony for how that should be calculated could
5 lead a reasonable jury to conclude that it should award a lump
6 sum of \$166,303,391.

7 There is more than sufficient evidence for a reasonable
8 jury to award a lump sum, should they choose, or a running
9 royalty, should they choose, and there is certainly more than
10 sufficient evidence for a reasonable jury to award more than
11 \$1.35 million in damages as a lump sum if the '775 Patent is
12 infringed and more than enough evidence for a reasonable jury
13 to award more than \$531,000 if only the '134 Patent is
14 infringed.

15 And for those reasons, the Defendants' motion with
16 respect to damages should be denied.

17 THE COURT: All right. Thank you, counsel.

18 Before the Court announces its rulings on these various
19 motions raised by the parties under Rule 50(a), are there any
20 other matters we have not covered or have been left
21 incomplete?

22 Anything further from Plaintiff?

23 MS. GRIFFITH: Nothing further, Your Honor.

24 THE COURT: Anything further from AT&T or Nokia?

25 MS. STRAKA: Nothing further, Your Honor.

1 THE COURT: Okay. With regard to Plaintiff's motion
2 for judgment as a matter of law that there is no -- that there
3 is infringement, rather, of the '775 Patent and the
4 corresponding motion from Defendant and Intervenor that there
5 should be judgment as a matter of law entered that there is no
6 infringement as to the '775 Patent, those two competing
7 motions are denied.

8 With regard to the Defendants' motion of non-infringement
9 under Rule 50(a) concerning the '134 Patent, that motion is
10 denied.

11 With regard to the Defendant and Intervenor's motion that
12 both the '134 Patent and the '775 Patent as to the claims
13 asserted in this case are invalid as being obvious, those are
14 denied.

15 And with regard to the Defendant and Intervenor's motion
16 for judgment as a matter of law related to damages, including
17 no damages, no running royalty damages, and no lump sum
18 royalty damages, those motions are denied.

19 All matters presented by the parties pursuant to Rule
20 50(a), to avoid any lack of clarity, are denied by the Court.

21 All right, counsel. Thank you for your arguments.

22 It is 2:00, more or less. I'd like to take about a
23 30-minute break, and then those of you that are going to be
24 participating and involved in the informal charge conference,
25 I'd ask you to meet me at 2:30 in chambers and we will review

1 the most current offering regarding the proposed final jury
2 instructions and verdict.

3 I welcome your participation and input. The informal
4 charge conference is intended by the Court to be informal and
5 free-flowing. I want to know what you think. I want to
6 discuss where you disagree. I may have areas that you're in
7 agreement that I want to discuss. But we will cover anything
8 and everything related to the charge and the verdict form in
9 chambers during the informal charge conference.

10 Once I've had the benefit of a fulsome discussion with
11 counsel for the parties as a part of that process, then I will
12 take that input into account and I will generate what I
13 believe to be the appropriate and proper final jury
14 instruction and verdict form for use in this case.

15 I'll then deliver copies of those documents to counsel
16 for the competing parties with an opportunity to review and
17 consider the same. And after you've had an opportunity to
18 review them and consider them, then I'll conduct a formal
19 charge conference in the courtroom on the record where either
20 party may raise such objections on the record as they believe
21 are both proper and in the interest of their clients.

22 Any questions? If not, we stand in recess. I'll see
23 those of you participating in the informal charge conference
24 in chambers in 30 minutes.

25 (Recess taken.)

1 THE COURT: Be seated, please.

2 After hearing from the parties with regard to motions
3 they cared to offer under Rule 50(a), the Court met with
4 counsel for the competing parties in chambers and conducted a
5 fulsome informal charge conference, reviewing the most current
6 submitted iteration of the final jury instructions and verdict
7 form. The Court had an opportunity to discuss with counsel
8 for the parties those areas where they were not in agreement.
9 The Court also was able to discuss with the parties various
10 other areas about the submissions that perhaps they weren't in
11 agreement or were not in disagreement about but the Court felt
12 further input would be helpful.

13 After, as I say, a fulsome and free-flowing informal
14 charge conference, the Court considered and took into account
15 the input from the parties through their counsel and has now
16 generated what it believes to be the proper final jury
17 instructions and verdict form for submission in this case.
18 I'm now prepared to conduct a formal charge conference on the
19 record reviewing both the final jury instructions and verdict
20 form.

21 Counsel, some of you may be aware, and in case some of
22 you are not, my typical practice in this regard is to ask that
23 there be a single spokesman for each of the competing sides at
24 the podium together. My practice is to walk through on a
25 page-by-page basis these documents beginning with the first

1 page and at each page ask if there are any objections to be
2 raised either as to something that has been included or
3 something that has been omitted, and by doing this on a
4 page-by-page basis, the Court believes that the likelihood of
5 overlooking anything unintentionally is greatly reduced.

6 So whoever will speak for Plaintiff and whoever will
7 speak for Defendant and Intervenor, if you would go to the
8 podium, we will begin with the final jury instructions and
9 we'll begin with page 1 of that document.

10 And I don't want you to feel like you're artificially
11 limited to only one person. Your co-counsel are free to pass
12 you notes if you think that's necessary or to consult with you
13 quietly as we go through this, but it saves a lot of time if
14 we do this with each representative at the podium together
15 instead of waiting for the other one to get up and walk across
16 the courtroom and respond.

17 So we'll begin the formal charge conference. Turning to
18 the final jury instructions, we will begin with the cover page
19 or page 1 of that document. Are there any objections here
20 from either party?

21 MS. XI: No objections from Plaintiff.

22 MS. KENNEDY: Your Honor, just a minor thing while
23 we're here. Nokia -- I think it's Nokia of America, comma,
24 Corporation in the caption.

25 THE COURT: Nokia of America, not American?

1 MS. KENNEDY: Is that right, Ms. Straka?

2 Yes, Your Honor.

3 MS. STRAKA: Yes, Your Honor.

4 THE COURT: So the style on the first page will be
5 Nokia of America, comma, Corporation. Is that correct? Your
6 head's moving up and down, counsel.

7 MS. KENNEDY: Oh, yes. Thank you, Your Honor.

8 THE COURT: We still have a record.

9 Okay. I'll make that change on the first page.

10 MS. STRAKA: Your Honor, I think it's Nokia of
11 America Corporation without a comma between America and
12 Corporation.

13 THE COURT: Well, I'm happy to do it either way, as
14 long as you-all can agree on what's the right way to do it.

15 MS. STRAKA: No comma, Your Honor.

16 THE COURT: All right. So the style of the case,
17 the heading on the top of page 1 will be Nokia of America
18 Corporation.

19 All right. Hearing nothing further on page 1, we'll turn
20 to page 2 of the final jury instructions. Is there any
21 objection here from either party?

22 MS. XI: No, Your Honor, for Plaintiff.

23 MS. KENNEDY: No, Your Honor.

24 THE COURT: Turning then to page 3, are there
25 objections here from either party?

1 MS. XI: None from Plaintiff.

2 MS. KENNEDY: No, Your Honor.

3 THE COURT: All right. Turning next to page 4, are
4 there objections here?

5 MS. XI: None from Plaintiff.

6 MS. KENNEDY: I'm sorry. Page 4?

7 THE COURT: Yes.

8 MS. KENNEDY: No, Your Honor.

9 THE COURT: Turning, then, to page 5 of the final
10 jury instructions, is there objection here from either party?

11 MS. XI: None from Plaintiff.

12 MS. KENNEDY: No, Your Honor.

13 THE COURT: Turning to page 6, are there any
14 objections here?

15 MS. XI: So from Plaintiff, I noticed that both AT&T
16 and Nokia bear the burden of proving invalidity of Finesse's
17 patents. I think that's inconsistent with the verdict form,
18 and elsewhere throughout these instructions where only AT&T
19 has been mentioned as bearing that burden.

20 MS. KENNEDY: And we do agree with that based on the
21 verdict form that has been proposed that the reference to
22 Nokia bearing a burden of proof would not --

23 THE COURT: All right. Then at the bottom of page
24 5, the final two lines, will read, "The Defendant AT&T
25 Mobility, LLC, which you've heard referred to throughout the

1 trial as AT&T, has the burden", the top of page 6, "of proving
2 invalidity of Finesse's patent claims by clear and convincing
3 evidence."

4 Any other objections on page 6?

5 And if you'll call that same occurrence to my attention
6 as we go forward, we'll adjust accordingly.

7 MS. XI: Yes, Your Honor.

8 No other objections from Plaintiff.

9 THE COURT: Anything further from Defendant and/or
10 Intervenor on page 6 of the final jury instructions?

11 MS. KENNEDY: No, Your Honor, not on page 6.

12 THE COURT: Turning, then, to page 7, any objections
13 here from either party?

14 MS. XI: None from Plaintiff.

15 MS. KENNEDY: For AT&T and Nokia, we object to "the
16 Nokia technology such as that found in remote radio heads."

17 THE COURT: Can you specify where on the page you're
18 talking about?

19 MS. KENNEDY: It is in the first paragraph, the
20 third line down, and I think 'such as that' -- our objection
21 is to 'such as that' because it suggests that it is an example
22 of or that it is technology that's like that but could be
23 broader. So 'Nokia technology found in remote radio heads
24 implementing GROOT code' would be fine with us. Our objection
25 is to the 'such as that' language.

THE COURT: All right. That objection is overruled.

2 Anything further on page 7?

3 MS. KENNEDY: No, Your Honor.

4 THE COURT: All right. We'll turn to page 8 of the
5 final jury instructions. Is there objection here from either
6 party?

7 MS. XI: No, Your Honor.

8 MS. KENNEDY: No, Your Honor.

9 THE COURT: All right. Then we'll turn to page 9 of
10 the final jury instructions. Is there any objection here from
11 either party?

12 MS. XI: None from Plaintiff.

13 MS. KENNEDY: No, Your Honor.

14 THE COURT: Turning to page 10 of the final jury
15 instructions, is there any objection here from either party?

16 MS. XI: None from Plaintiff.

17 MS. KENNEDY: May I have just a moment to confer
18 with Ms. Straka?

19 THE COURT: Take a moment.

20 (Pause in proceedings.)

21 MS. KENNEDY: Thank you. No, Your Honor, no
22 objection

23 THE COURT: Turning, then, to page 11 of the final
24 jury instructions, are there any objections here from either
25 party?

1 MS. XI: None, Your Honor.

2 MS. KENNEDY: No, Your Honor.

3 THE COURT: All right. Turning, then, to page 12,
4 are there any objections here?

5 MS. KENNEDY: Your Honor, we do object to including
6 'or under the doctrine of equivalents' here --

7 THE COURT: Can you specify where on the page you're
8 focusing?

9 MS. KENNEDY: Yes. Thank you, Your Honor. So it is
10 the second paragraph, third line, "claim, either literally or
11 under the doctrine of equivalents." There is not a broad DOE
12 assertion by the Plaintiff here, and any equivalence arguments
13 would be covered by the means-plus-function instructions.
14 That's the only area in which the Plaintiff is arguing any
15 sort of equivalent theory and there's no doctrine of
16 equivalents infringement question on the verdict form.

17 THE COURT: All right. That objection's overruled.

18 Anything else on page 12?

19 MS. XI: None from plaintiff.

20 MS. KENNEDY: No, Your Honor.

21 THE COURT: Turning, then, to page 13, are there
22 objections here from either party?

23 MS. XI: None from Plaintiff.

24 MS. KENNEDY: No, Your Honor.

25 THE COURT: All right. If you'll return to page 12,

1 I have reconsidered Defendant and Intervenor's objection
2 there. Turning to the second full paragraph on page 12, I'm
3 going to modify the first sentence to read as follows: "In
4 order to prove direct infringement of a patent claim, Finesse
5 must show by a preponderance of the evidence that the accused
6 products include each and every limitation of the claim." I
7 think that addresses the objection raised by Defendant and
8 Intervenor.

9 MS. KENNEDY: Thank you, Your Honor. It does.

10 THE COURT: All right. Let's return to page 13.
11 Am I correct there are no objections here?

12 MS. XI: Yes, Your Honor.

13 THE COURT: Is that correct for AT&T and Nokia?

14 MS. KENNEDY: Yes, Your Honor.

15 THE COURT: All right. Then that brings us to page
16 14 of the final jury instructions. Are there any objections
17 here?

18 MS. XI: No objection. There is a typo I think at
19 line 10 or 11; line 9 actually. The D from the word 'does'
20 carries over.

21 THE COURT: Oh, and 'thus does', the word 'does' is
22 split. All right. Thank you. We'll put the four letters of
23 that word back together.

24 MS. KENNEDY: And Your Honor, on the second full
25 paragraph on page 14 that begins, "If you do not find that

1 each element" --

2 THE COURT: Yes.

3 MS. KENNEDY: We would ask -- we ask that if you
4 find the means -- instead of the word 'each' on the second
5 line of that, 'if you find each element is met' to insert
6 between 'each' and 'element' "each means-plus-function claim
7 element." And in that event -- yes.

8 THE COURT: Well, it's clear that this section of
9 the final jury instructions is addressing the
10 means-plus-function limitations. I'm not sure that it's
11 unclear that this sentence you've raised relates to anything
12 other than means-plus-function. I am willing to preface the
13 first sentence in the second full paragraph by saying "In this
14 regard, if you do not find", And I think that ties it clearly
15 back to the means-plus-function discussion that precedes it.

16 To the extent that satisfies your objection, fine; if it
17 doesn't, then your objection is overruled, but that's the
18 change I'm going to make.

19 MS. KENNEDY: Thank you, Your Honor.

20 THE COURT: Is there anything else from either party
21 on page 14?

22 MS. XI: No, Your Honor.

23 MS. KENNEDY: Yes. I'm sorry, Your Honor. Thank
24 you.

25 THE COURT: Yes there's no objection, or yes there's

1 not?

2 MS. KENNEDY: There is no objection to page 14
3 additional.

4 THE COURT: Other than what we've covered.

5 MS. KENNEDY: Yes.

6 THE COURT: Then we'll turn to page 15. Are there
7 objections here from either party?

8 MS. XI: None from Plaintiff.

9 MS. KENNEDY: No, Your Honor.

10 THE COURT: Turning, then, to page 16, are there
11 objections here?

12 MS. XI: From the Plaintiff, I think the only
13 objection we have would be to the last sentence of the first
14 full paragraph that states, "These obviousness theories
15 pertain to all asserted claims in this case." I think that's
16 not clear that there is only one obviousness theory pertaining
17 to each patent or all of the patent claims in one of the
18 patents. So the two theory is applied to both patents and all
19 of their claims, but not each of the theories applying to each
20 of the patents.

21 THE COURT: All right. Then with that objection in
22 mind, I'm going to alter the last sentence of the first full
23 paragraph on page 16 of the final jury instructions to read as
24 follows: "These obviousness theories pertain to the asserted
25 claims in this case as presented in the evidence you have

1 heard."

2 MS. XI: Thank you, Your Honor.

3 THE COURT: Does that satisfy Plaintiff's objection?

4 MS. XI: Yes, Your Honor.

5 THE COURT: Any objection from Defendant or
6 Intervenor on page 16?

7 MS. KENNEDY: No, Your Honor.

8 MS. XI: Your Honor, sorry. One more thing about
9 the second paragraph from the bottom. Is there any way that
10 we could add the undisputed priority date of each patent?

11 THE COURT: Are you talking about in the paragraph
12 that begins "Even though an invention"?

13 MS. XI: Yes. So it ends with "The invention must
14 also not have been obvious to a person of ordinary skill in
15 the filed of technology of the patent at the time the
16 invention was made." It occurred to me that since we are
17 spelling out the particular prior art references in the two
18 obviousness combinations and theories that perhaps one of them
19 has a date -- the Lui reference has a June 1990 date. If it
20 would be okay with the Court if we also added a 2001 and 2008.

21 THE COURT: What does Defendant and Intervenor say
22 to that?

23 MS. KENNEDY: Your Honor, we object to that
24 instruction. I don't think --

25 THE COURT: All right. I'm not going to alter that

1 paragraph. Certainly counsel, if it's not in dispute, it
2 certainly can be incorporated into the parties' closing
3 arguments they present to the jury, but I'm not going to go
4 into it in the instruction.

5 Anything else on page 16, counsel, before we go forward?

6 MS. XI: No, Your Honor.

7 THE COURT: Anything further, Ms. Kennedy?

8 MS. KENNEDY: I'm sorry. No, Your Honor.

9 THE COURT: Turning to page 17 of the final jury
10 instructions, are there objections here from either party?

11 MS. XI: None from Plaintiff, Your Honor.

12 THE COURT: Anything from Defendant or Intervenor?

13 MS. KENNEDY: Your Honor, we would object at the
14 last paragraph on page 17 that begins with "Considering
15 whether a claimed invention is obvious" to the words "but are
16 not required to."

17 THE COURT: All right. That objection is overruled.

18 Anything else on page 17?

19 MS. KENNEDY: No, Your Honor.

20 THE COURT: Turning, then, to page 18, is there any
21 objection here from either party?

22 MS. XI: From the Plaintiff, looking towards the
23 bottom of the page at the last -- the second phrase in the
24 last sentence before the bulleted list, we object to "but it
25 is up to you to decide whether secondary considerations of

1 non-obviousness exist at all."

2 THE COURT: All right. That objection is overruled.

3 Anything from Defendant or Intervenor by way of objection
4 on page 18?

5 MS. KENNEDY: No, Your Honor.

6 THE COURT: Turning, then, to page 19, are there any
7 objections here from either party?

8 MS. XI: None from Plaintiff.

9 MS. KENNEDY: Your Honor, in the numbered list at
10 the top of page 19, item 6 is whether others copied the
11 claimed invention. There has been no evidence at all that
12 there's been copying, and so we would ask that that not --
13 we object to that language being included here.

14 THE COURT: That's overruled.

15 Anything further?

16 MS. KENNEDY: No, Your Honor.

17 THE COURT: Turning to page 20, are there objections
18 here from either party?

19 MS. XI: None from Plaintiff.

20 MS. KENNEDY: No, Your Honor.

21 THE COURT: All right. Turning, then, to page 21,
22 are there any objections here?

23 MS. KENNEDY: Yes, Your Honor.

24 THE COURT: State your objection.

25 MS. KENNEDY: The objection is concerning the

1 language at the bottom of page 21, the second to last line
2 beginning with "However, a lump sum royalty is when the
3 infringer pays a single price for a license covering both past
4 and future infringing sales." We contend that that language
5 actually -- I'm sorry. That language is okay. It is really
6 the next sentence that starts at the bottom of page 21.

7 THE COURT: Since you raised that sentence,
8 Ms. Kennedy, I'm going to change 'infringing sales' to simply
9 'infringement', "covering both past and future infringement."
10 I think that's clearer.

11 Now, the next sentence you want to raise an objection in
12 regard to?

13 MS. KENNEDY: Yes. Although the language that is --
14 I am objecting to is on page 22, would you like me to just go
15 ahead and proceed?

16 THE COURT: Yes. The sentence begins at the bottom
17 of 21 and carries on to 22, so tell me what your objection is
18 on both pages.

19 MS. KENNEDY: The objection, Your Honor, is that we
20 object that this language does not adequately comport with
21 what is required to prove a lump sum royalty. We believe this
22 language suggests that the Plaintiff -- that the jury sitting
23 here today in the courtroom could consider what AT&T's going
24 to do in the future and what it has done in the past and based
25 on today's knowledge just award damages for past and future

1 infringement and call it a lump sum.

2 A lump sum royalty is what the parties would have agreed
3 to back in 2018 to pay a one-time lump sum, and so the Federal
4 Circuit pattern instructions we believe would be more
5 appropriate and -- which say, "A lump sum payment is equal to
6 an amount that the alleged infringer would have paid at the
7 time of a hypothetical negotiation for a license covering all
8 sales of the licensed product, both past and future. When a
9 lump sum is paid, the infringer pays a single price for a
10 license covering both past and future infringing sales."

11 And we believe that language better reflects what the
12 lump sum reality is supposed to be is that the parties back in
13 2018 may not have known what the actual infringement would be
14 going forward, but that what one single lump sum price would
15 they have agreed to; not you need to sit here today and
16 compensate Finesse for any past and future infringement that
17 may happen.

18 The jury award should always be to compensate for past
19 infringement, and if the jury thinks that the amount for past
20 infringement would have been a one-time lump sum, they are
21 free to award that, but it should not be that the jury can
22 award damages for things that AT&T has not done yet. And
23 that's consistent also with --

24 THE COURT: I understand your objection.

25 MS. KENNEDY: Okay.

1 THE COURT: In response to your objection, here's
2 what I'm going to do, Ms. Kennedy. I'm going to alter the
3 last sentence on the bottom of page 21 that carries over to
4 the top of page 22 so that it will hereafter read as follows:
5 "If you decide that a lump sum is appropriate, then the
6 damages you award, if any, should reflect the total amount
7 necessary to compensate Finesse for AT&T's infringement
8 through the life of the patents." I think that addresses your
9 objection; you may not; but I'm satisfied that that's the
10 appropriate change.

11 MS. KENNEDY: Understood, Your Honor. We do still
12 maintain the objection to the new language as well and would
13 prefer the Federal Circuit pattern jury instruction that I
14 read in.

15 THE COURT: To the extent you remain unsatisfied,
16 your objection is overruled.

17 MS. KENNEDY: Thank you.

18 THE COURT: Anything further, counsel, on page 22?

19 MS. XI: No, Your Honor.

20 THE COURT: And then page 23 covers the remainder of
21 the *Georgia-Pacific* factors that start on 22 and end at the
22 top of 24. Does either party object to the Court charging the
23 jury on all 15 of the *Georgia-Pacific* factors?

24 MS. XI: Not from Plaintiff.

25 MS. KENNEDY: No, Your Honor.

1 THE COURT: Okay. Do I gather there are no other
2 objections on page 22? Correct?

3 MS. XI: Correct.

4 MS. KENNEDY: Correct.

5 THE COURT: Any objections on page 23 which continue
6 with the *Georgia-Pacific* factors?

7 MS. XI: None from Plaintiff.

8 MS. KENNEDY: No, Your Honor.

9 THE COURT: Turning, then, to page 24 where the last
10 *Georgia-Pacific* factor runs to approximately the middle of the
11 page, are there any objections here regarding anything on page
12 24 from either party?

13 MS. XI: None from Plaintiff.

14 MS. KENNEDY: No, Your Honor.

15 THE COURT: Turning to page 25, any objection here?

16 MS. XI: None from Plaintiff.

17 MS. KENNEDY: No, Your Honor.

18 THE COURT: Turning, then, to page 26, is there any
19 objection here?

20 MS. XI: None from Plaintiff.

21 MS. KENNEDY: No, Your Honor.

22 THE COURT: And page 27, the final page of the final
23 jury instructions, are there any objections here from either
24 party?

25 MS. XI: None from Plaintiff.

1 MS. KENNEDY: No, Your Honor.

2 THE COURT: All right, counsel. Then let's turn our
3 attention to the verdict form. It's provided to you in the
4 same manner as the final jury instructions and we'll address
5 it in the same way.

6 Any objections to the cover page or page 1 of the verdict
7 form from either party?

8 MS. KENNEDY: Your Honor, I'm sorry. I want to make
9 sure I have the right thing open.

10 THE COURT: Take a moment.

11 MS. XI: None from Plaintiff.

12 MS. KENNEDY: No, Your Honor.

13 THE COURT: All right. Turning, then, to page 2 of
14 the verdict form where there's a definition section, are there
15 any objections here from either party?

16 MS. XI: None from Plaintiff.

17 MS. KENNEDY: No, Your Honor.

18 THE COURT: Turning, then, to page 3 of the verdict
19 form where there are instructions to the verdict from the
20 Court, any objections here from either party?

21 MS. XI: None from Plaintiff.

22 MS. KENNEDY: No, Your Honor.

23 THE COURT: Turning, then, to page 4 where
24 question 1 is found. Are there objections from either
25 party?

1 MS. XI: None from Plaintiff.

2 MS. KENNEDY: No, Your Honor.

3 THE COURT: Turning to page 5 where question 2
4 is found, are there objections from either party?

5 MS. XI: None from Plaintiff.

6 MS. KENNEDY: No, Your Honor.

7 THE COURT: Turning to page 6 where question 3
8 is found, are there objections here from either party?

9 MS. KENNEDY: I would like a short break, Your
10 Honor, just very briefly, to go confer on question 3.

11 THE COURT: If you'd like to consult with
12 co-counsel, take a moment to do that.

13 MS. KENNEDY: Thank you.

14 (Pause in proceedings.)

15 THE COURT: Are you prepared to continue,
16 Ms. Kennedy?

17 MS. KENNEDY: Thank you, Your Honor. Yes.

18 THE COURT: Let's return to page 6 of the verdict
19 form where question 3 is found. I'll ask again, is there
20 objection here from either party?

21 MS. KENNEDY: Your Honor, we incorporate our
22 previous objections that we believe that the Plaintiff has not
23 proven a lump sum royalty in this case and our objections to
24 the instructions on that, so that carries forward to this
25 instruction, as well as for the reasons objected to in our

1 Rule 50(a) motion we object to any of these verdict questions
2 going to the jury.

3 THE COURT: Your position is noted. Your objections
4 are overruled.

5 MS. KENNEDY: Thank you.

6 THE COURT: Anything further from Defendant or
7 Intervenor on page 6?

8 Ms. Kennedy?

9 MS. KENNEDY: No. Thank you, Your Honor.

10 THE COURT: Anything from Plaintiff on page 6?

11 MS. XI: No, Your Honor.

12 THE COURT: Let's turn to page 7, which is the final
13 page of the verdict form. Does either party have an objection
14 here?

15 MS. XI: None from Plaintiff.

16 MS. KENNEDY: No, Your Honor.

17 THE COURT: All right, counsel. That completes the
18 formal charge conference. I'll make the changes as indicated
19 and I'll generate final versions of these documents. Copies
20 will be provided to the parties by email this evening.

21 As I indicated to you in the informal charge conference,
22 it's my long-standing practice to prepare eight printed copies
23 of the final jury instructions to give to the jury and to tell
24 them before I give the instructions to them orally that they
25 will each have their own written copy to review during their

1 deliberations in the jury room.

2 Is there anything else from either party before we recess
3 for the evening?

4 MS. XI: No, Your Honor.

5 MS. KENNEDY: No, Your Honor.

6 THE COURT: We stand in recess. Thank you.

7 (The proceedings were concluded at 5:00 p.m.)

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1 I HEREBY CERTIFY THAT THE FOREGOING IS A
2 CORRECT TRANSCRIPT FROM THE RECORD OF
3 PROCEEDINGS IN THE ABOVE-ENTITLED MATTER.

4 I FURTHER CERTIFY THAT THE TRANSCRIPT FEES
5 FORMAT COMPLY WITH THOSE PRESCRIBED BY THE
6 COURT AND THE JUDICIAL CONFERENCE OF THE
7 UNITED STATES.

8
9 S/Shawn McRoberts

01/12/2023

10 _____ DATE _____
11 SHAWN McROBERTS, RMR, CRR
FEDERAL OFFICIAL COURT REPORTER

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